A Proposal for an E-mail Archiving System

(Why not to choose an email archiving solution from Microsoft Exchange 2010?)

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EXECUTIVE SUMMARY

An email archiving systems permits an organization to store old emails, large attachments and other content in a central repository that is easy for IT, legal counsel, senior managers and others to access. This frees up space on existing servers for other business applications, and helps speeding up email server backups and restores. When used with e-discovery tools, email archiving software can enable organizations to search very large quantities of content in a short period of time, while a tape backup system lacks of this capability, as shown in the following:

Going through backup tapes for e-discovery is not only expensive, but also very time consuming:

- Reviewing information on backup tapes is no easy task. For example, a compressed LTO-4 tape can hold 1,600 gigabytes of email. This yields almost 112 million printed pages of text. The problem is the content on the tapes is **not** indexed, making searching for content difficult and time consuming.
- According to published reports, the cost of sifting through this media (tapes) can be very high – in one case, for example, the cost of recovering two years of email for one employee was expensive. This could cost the A-C a lot of money for 2 TB of discoverable data.
- The tape restoration will take much longer when a file or folder must be restored for files older than 5 or 10 years.

Backups are good, but they are not an archive. Many people believe that backups stored for long periods constitute an archive. While backups are an important best practice and must be used in order to restore servers quickly after hard disks crash, or some other disruptive event, they really do not constitute an effective archiving solution for two important reasons:

1. As mentioned above, going through an e-discovery exercise can be extremely time-consuming and expensive, if IT has only backup tapes. Most tapes can be overwritten. Therefore, very important emails are only on a few tapes to be restored in the event of the e-discovery.

2. Most importantly, backups can not preserve information created and destroyed between backup windows. In other words, tracking an email could be lost when an e-discovery exercise must be performed within a

24-hour backup window because our daily email backup is performed at 7:00pm.

With that being said, we need to have a robust email archiving system in place before we can purge any email from our current system unless a data retention policy allowed. In other words, once emails are purged, those emails are not expected to be recovered.

An important and related benefit of an archiving system is its ability to shorten backup and restore times for email servers because an attachment can be migrated to an archiving system. This is a major benefit for IT staff and users, since it allows email servers to be recovered much more quickly after an incident that causes an email server to go down.

Why not to choose an email archiving solution from Microsoft Exchange 2010?

1. Outlook 2010 must be installed on each client PC in order to use Exchange 2010 content archiving feature. This will increase the cost of email archiving dramatically **($276,000.00** for the Office 2010 Pro License fee at $460 for each copy for 600 users).

2. Additional **$300,000** is required to purchase both Exchange 2010 Enterprise Edition and Enterprise Client Access Licenses (CALs) for 600 users.

3. Additional 6TB storage must be purchased for the new Exchange 2010 server since the archiving database must be existed on the same volume (disk) with the Exchange 2010 Mailbox databases. Since the A-C has no SAN Infrastrure at all, this will require the A-C spend at least additional **$4,000.00 to $5,000.00** (estimated) to increase the new Exchange 2010 storage capacity to 6TB for the achieving storage.

4. Microsoft email archiving solution from Microsoft Exchange 2010 puts all eggs in one basket. It does not provide any disaster recovery (DR) at all for the A-C.

5. A third party email archiving solution, at **one-third to one-fourth** the cost of Microsoft email archiving solution, will provide some DR capability. One of the important benefits of an archiving system, as shown in Figure 1 is its ability to provide DR and its partial business continuity capabilities (BCC). For a full DR capability, the A-C must seek a different method, such as one of the methods mentioned in the Appendix.

A properly configured archiving system can be very useful in helping to restore email capability after any event that caused an email server to go down.

An email archiving system allows users to continue to access existing email through the archive, although they can not send and receive new ones (Archival does not serve as a mail server, as shown in the configuration of Figure 1).

A Brief Overview of an E-mail Archiving Appliance:

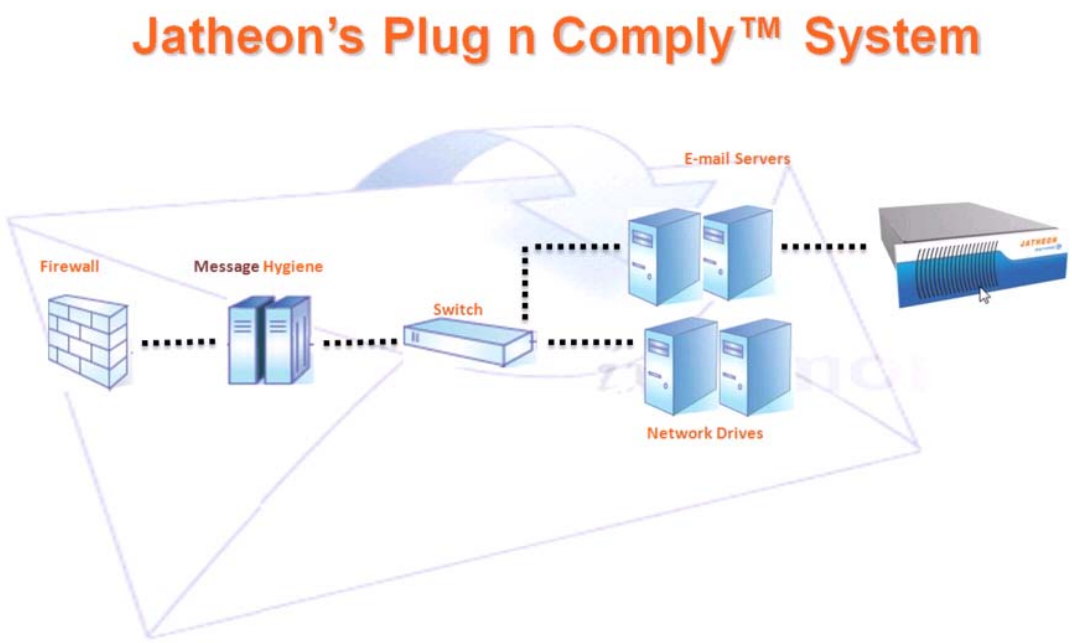

Figure 1 **An E-mail Archiving Appliance**

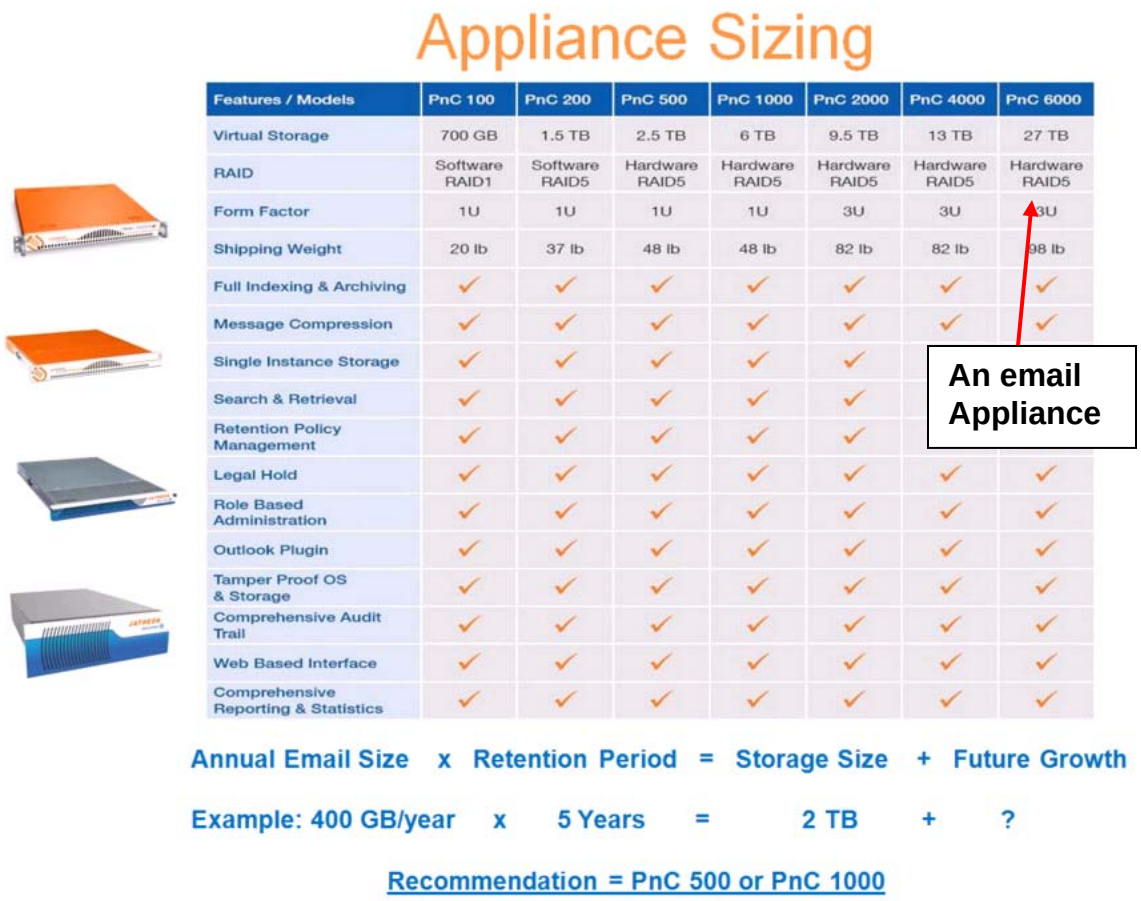

Figure 2 **Jatheon Appliance Models**

Advantages of Jatheon

Simplicity

- Full turn key appliance
- Simple to setup and simple to use
- Management requires little or no IT experience

Supports all platforms

- Microsoft, Lotus Notes, Novell GroupWise, Kerio, Scalix, POP Mail, Google Mail, Office 365 etc.,

Redundancy/Back-Up

- All models have RAID configuration
- Utilize your existing back-up solution: A Snapshot of the archive is available through the secure network drive which can be mounted by your backup software

Advanced Functionality

- Multi-parameter Search Engine Indexing & compression
- Powerful Policy Management Tools, legal hold, policy based retention
- Plug-in for seamless end-user experience for Outlook & Lotus Notes users
- Remote central monitoring system

- End-user data can be viewed via searching engine through indexed files to support legal discovery.
- The appliance itself is non-intrusive to the network. This means it will not install any agent to any desktop or Exchange server.
- Any email sent or received will be archived, regardless whether the email will be deleted or not before the daily email backup takes place in the evening.
- Once an email arrives at the appliance, it will stay there forever unless a compliance officer makes a special treatment.
- Configure the appliance as a shared drive (Ex: Drive F:) so that Backup Exec 12 will treat it as a local drive for the backup purpose.
- The A-C will receive a free technical support for the first year. Annual Maintenance is at 20% of the original purchasing price.

The A-C will have to weigh for the specific benefits against the cost of email archiving (about $40/user). With a mandatory requirement from the policy of the County of Los Angeles, the A-C might end up saving in the end.

Recommendation:

1. Purchase an E-mail Archiving Appliance such as PnC1000 or similar one from other vendors.
   a. Send a request for a quote.

b. Receive a quote.
c. Get an approval.

2. Install the Appliance at the A-C testing environment
   a. Work with an E-mail Archiving vendor to make the system work.
   b. Install Outlook plug-in applet – small add-on software to integrate search capability with an outlook client.
3. Install the Appliance at the A-C production environment
   a. Work with an E-mail Archiving vendor to make the system work.
   b. Install Outlook plug-in applet – small add-on software to integrate search capability with an outlook client.
   c. Train users how to use it.

Why choose an appliance?

Simplicity

- Full turn key appliance
- Up and running in hours
- Learning curve is low
- Management is easy

Reliability

- No risk of crashing e-mail servers.
- Data is secure in a tamper proof system.
- Hardware RAID capability

Reduced Cost

- Exchange 2010 archive must be accessed through Outlook 2010 to reduce database size
- Microsoft **eCALs** license is not needed
- In order to use eCALs license, the organization must purchase Exchange Enterprise CAL license and must upgrade to Office 2010

Note: Users can access Exchange 2010 archiving via Outlook Web App and their Web browsers. But, it increases the size of the Exchange 2010 database(s) by 100%.

Reduce Backup Window

- Archiving email data will not be stored on the same Exchange server
- Provide a partial disaster recovery when an email server goes down

More Accurate Search Results

- An Exchange 2010 mailbox is under user control until a legal hold is placed on it. This allows users editing or deleting email contents before a user decides to put emails under a legal hold. Since the

preservation is **not** automatic, emails, that exist before the hold is applied, may have been deleted or changed. Therefore, those emails may not be exposed by a search and, more importantly, our organization would not meet compliance/regulations.

Good Functionality

- Multi-parameter Search Engine Indexing & Compression
- Powerful Policy Management Tools, legal hold, policy based retention
- Outlook Plug-ins provide seamless end-user experience for Outlook users, as shown in Figure 3
- Web based remote email searching and system monitoring, as shown in Figure 4

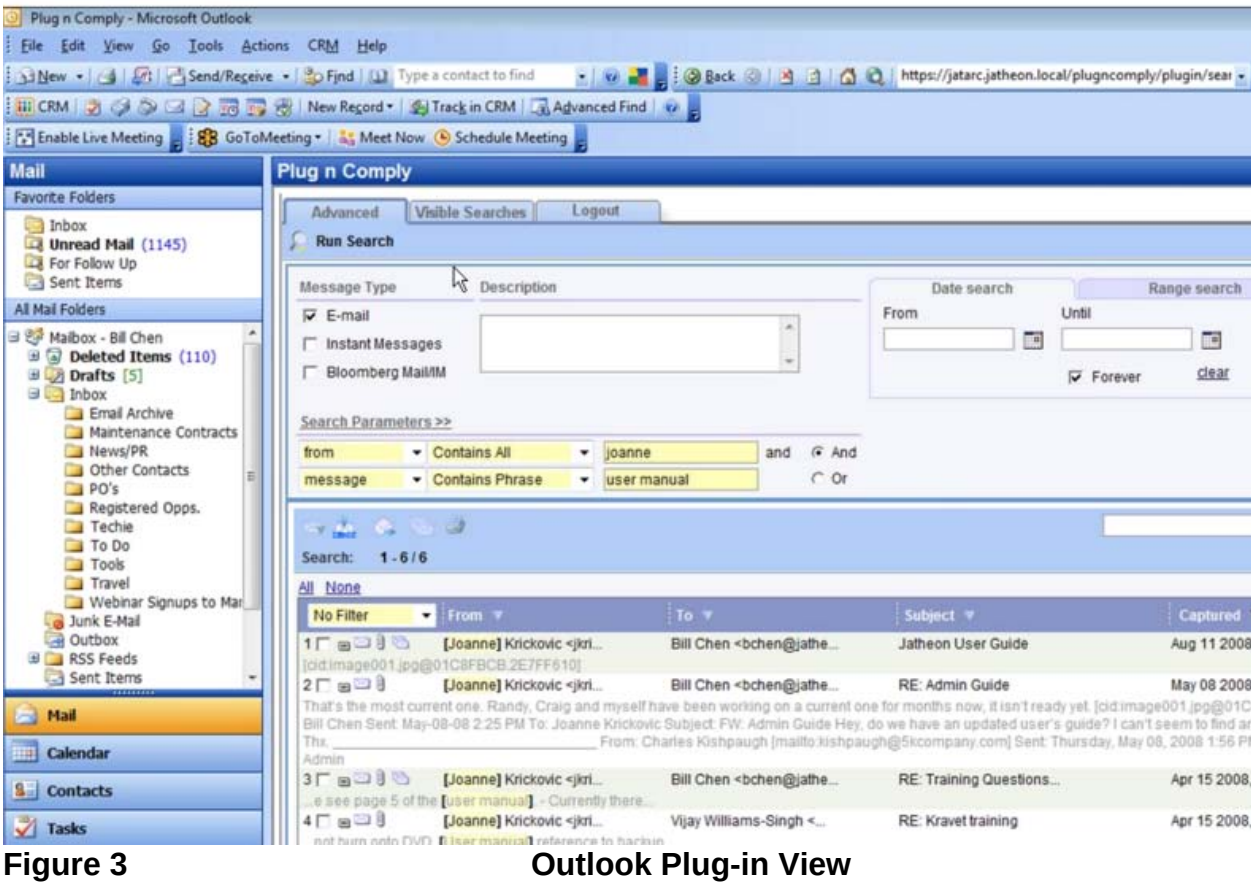

Figure 3 **Outlook Plug-in View**

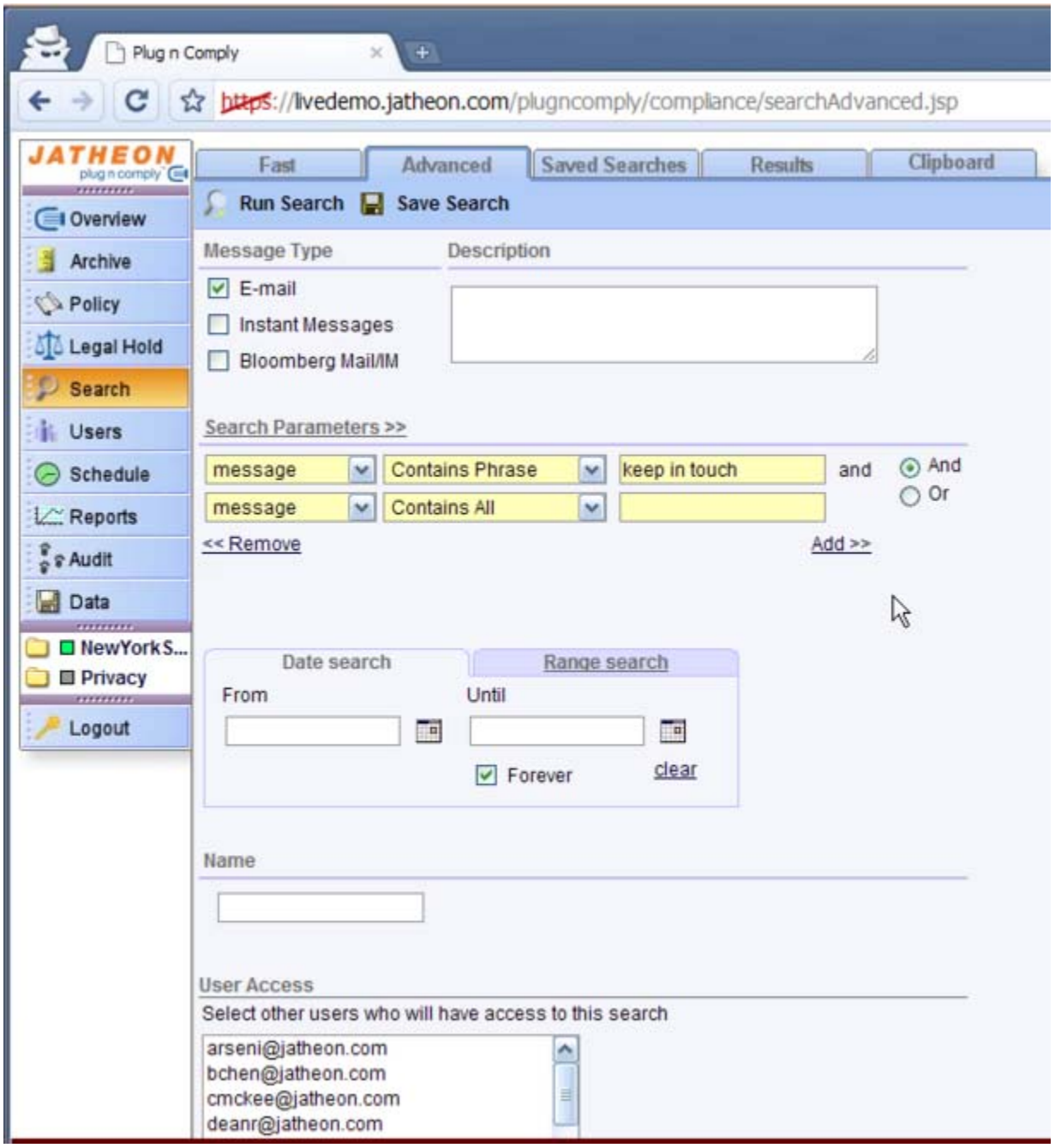

Figure 4 Web Console View

Conclusion:

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Therefore, an appliance for an email archiving might be the best option at this time.

Exchange Server 2010 represents a significant upgrade in features and functionality from its previous version and can help the A-C reduce costs by addressing common infrastructure requirements such as backup, mobile email access with no need for third-party tools, but new power and flexibility comes at a significant cost. Considering of the cost of a new server, the requirement for a 64-bit version of the Windows server operating system, a new license fee for both servers and 700 clients, plus additional eCAL license fee, which requires the A-C purchasing Exchange 2010 Enterprise CAL license fee, a complication of the migration of the existing Exchange 2003 environment and the training cost in order to support this new technology at the A-C, an email archiving via an appliance might help make the Exchange Server 2010 migration process faster and more efficient because most emails will be moved to an appliance. This will simplify the migration process, come at a significant lower price, and offer many more useable features.

On the other hand, because the A-C bought two new servers for the Exchange 2010 migration two months ago, and the budget for the upgrading of the Exchange 2010 server and other license fees has been approved, the priority should be placed on migration of Exchange 2010, instead of the E-mail archiving.

When Microsoft releases the service pack 1 for Exchange 2010, the E-mail archiving feature might be improved. Therefore, the built-in E-mail archiving might be reconsidered at that time.

Appendix:

A third party E-mail Archiving and E-Discovery method with a failover capability

It is possible to seek a third party E-mail Archiving and E-Discovery with a failover capability. The following third party E-mail Archiving and E-Discovery, as shown in Figure 5, will provide the A-C failover capability (BCP) when an on-premise email system (Exchange 2003 server) goes down. Users will continue to have an email service without knowing the on-premise email system goes down.

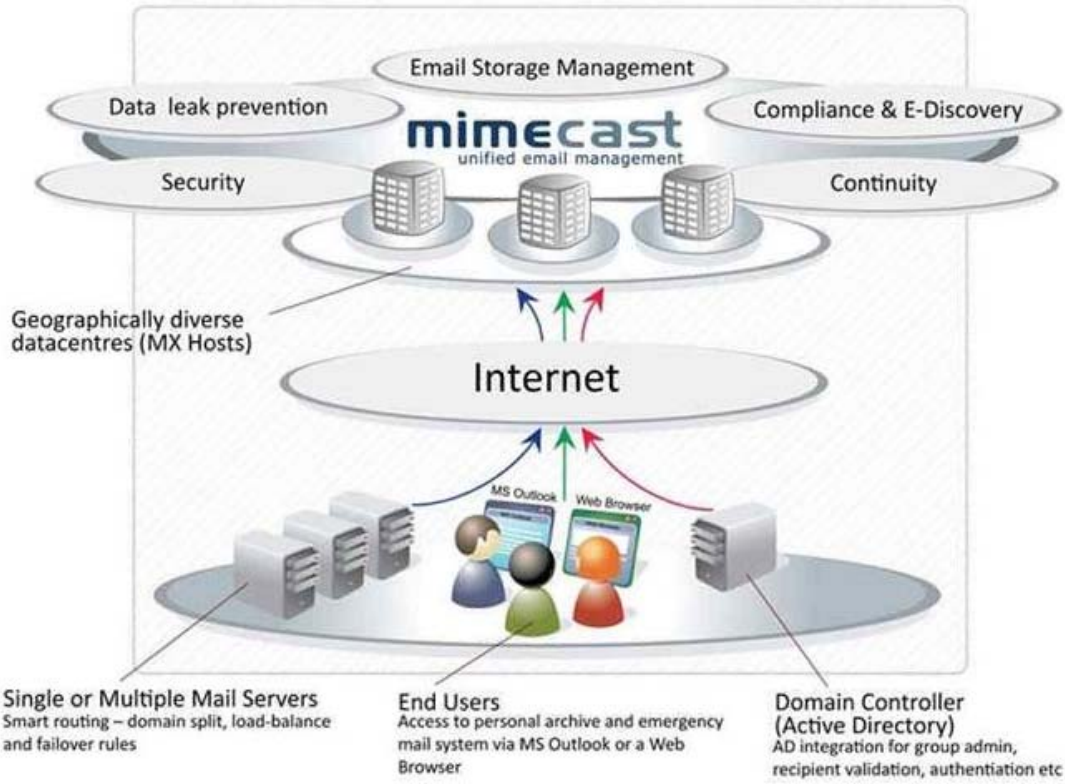

Figure 5 E-mail Archiving Failover

The cost of this configuration is at $4.00 per month per user. The method is **not** recommended at this time due to additional cost.