**Why should our e-mail server be upgraded?**

* E-mail service is critical to the daily operation of ZSI and every effort should be made to make sure it stays in operation to provide users with the service they need and expect.
* Our current server hardware & software is almost 15 years old and it is my opinion that it is prone to catastrophic failure at any time. It is also incompatible with just about all current software.  
  + Note that two older servers have already failed within the past year.
  + If the e-mail server were to fail we may be without e-mail for days or weeks and lose a large amount of messages forever.
* The current e-mail server software (Exchange 5.5) can only support 16 Gigabytes of data (about 2 movie DVDs worth of data).  
  + Heavy e-mail users produce about 1 Gigabyte of data per month each.
  + Most of the data usage is due to large file attachments, such as PDF files and pictures.
* A large amount of time is spent manually archiving e-mail.  
  + Archiving is the process of removing e-mails from the e-mail server and transferring them to files located on other servers and computers.
  + Archiving is done to keep the data on the e-mail server under 16 Gigabytes. Once 16 Gigabytes is reached, the e-mail server automatically stops transferring e-mail.
* Support for our current server is almost non-existent because of its age.  
  + Technicians from other companies refuse to work with it or have no knowledge of it.
  + Microsoft stopped support, upgrades, patches and fixes for it long ago.
* The system cannot run by itself and needs to be constantly maintained.   
  + I predict approximately 1 week of uptime without archiving and proper maintenance before e-mail service stops.
* We are missing out on many new e-mail features and storage capabilities.

**What are the benefits of upgrading to a newer server running Exchange 2010?**

* Microsoft Exchange 2010 is the latest e-mail server software from Microsoft, which provides improved storage, speed, performance, and features.
* It provides “unlimited” storage capacity. *Note that storage capacity is only limited by the number and size of hard drives available to store the data.*
* It includes a new version of Outlook Web Access for accessing e-mail remotely. (<https://owa.zamias.net>) *Please see included screen shot for an example of what it will look like.*  
  + It will provide the same look and feel as current versions of Microsoft Outlook.
  + Everyone will have the ability to access e-mail archives from the Internet, which we currently can’t do.
* Our new Dell office computers can be upgraded to use Outlook 2007, which we currently have but can’t use due to our older server. *Please see additional documentation for new features in Outlook 2007.*
* A new server will have the latest Intel processor, large amounts of memory and state of the art hard drives, which will serve our company’s needs well into the future and allow for continued growth and operation.
* Integration with Apple iPhones, Android OS devices, and other smart phones will be possible.
* We can utilize the latest version the Blackberry Enterprise Server software.  
  + Our current server isn’t compatible with the latest software release.
  + Newer software will allow us to link more BlackBerry devices directly to our corporate e-mail system than the current 15 user limit.   
    - Many current users must create personal e-mail accounts through Yahoo, Gmail or other providers for use with their Blackberries. This is an inconvenience and limits ZSI control of their messaging capabilities.

**How will e-mail get backed up or restored in the event it is accidentally deleted or the server crashes?**

* New backup software & hardware must be purchased to restore individual e-mails.  
  + I recommend purchasing Symantec Backup Exec Version 12 and a new HP LTO backup tape drive system.
  + The current tape backup system is incompatible, inadequate and can’t physically be installed in a new server.
* If data is to be taken offsite, then a new tape backup system must be purchased.  
  + Data should be taken offsite incase of fire, natural disaster, theft….
  + We currently have no offsite data storage. Most data is stored on external hard drives in the server room and it very dangerous to keep operating this way.

**What happens if no backup hardware or software is purchased?**

* If no new backup software & hardware is to be purchased, then only a complete system backup can be performed and this backup will be stored on an existing server in the server room.  
  + A complete backup can only be used to restore the entire system in the event of a massive hard drive failure. It can’t be used to recover individual e-mails.
  + An option can be set on the new server software to prevent users from emptying their Deleted Items Folder until a set number of days have gone by. This has the potential of keeping users from accidentally deleting e-mails, but I wouldn’t rely on it.

Dell PowerEdge R710 Server (Proposed E-mail Server)

**How much will this cost?**

* Three companies were contacted for quotes. Please see attached quotes for more detailed information. The prices below include the cost of everything we need (software, hardware, licensing, installation…).
  + Link Computer Corporation: $17,599/$22,840 with tape backup system
  + HP: $16,078.79
  + Precision Business Solutions: $17,537.93
  + Microsoft Exchange Online (Remotely Hosted Service): $1,560 per month ($5 per user, $4.50 for unlimited archiving, $10 for BlackBerry services)
  + Google Apps G-mail (Remotely Hosted Service): $6,000 per year (25GB per user account)
* Our current e-mail system cannot be migrated to either Exchange Online or Google Apps. We would practically have to start from scratch or first upgrade to Exchange to 2003.
* Software licensing is almost twice the cost as the hardware and I recommend purchasing 100 client access licenses (CALs). This is about 20 more than what we need, but it will allow us to add more users later on.
  + Each user that connects to the server and e-mail system needs a license and each license costs about $85 per user (Combined cost of server connection and e-mail license).

**Who do I recommend for the purchase and installation of the new server?**

* I recommend utilizing Link Computer Corporation to perform the upgrade.  
  + I’m confident in their abilities to perform the upgrade and they have provided quality support to Zamias for many years.
  + They have a solid plan and understanding of our network that other companies do not.
* The PowerEdge R710 server that Link is proposing is the same model server as our new existing Application and SQL Servers. This will make support and integration into our existing network much simpler.

**How long will the upgrade take?**

* The upgrade will take a few days, with major work being performed after hours or during the weekend in order to avoid disruptions in e-mail service.
* Main e-mail service should remain unaffected during the transition.

**What about the existing e-mail archiving appliance that was purchased (Barracuda Message Archiver)?**

* The archiving appliance will be used to supplement the new server and be used to store archive files.
* It cannot be returned for a refund.
* The main reason it was purchased was to extend the life of the existing e-mail system by automatically offloading e-mail file attachments.
* All existing archive files can be transferred to it once it is in operation.

**Other considerations:**

* I’ve never done an upgrade on this scale before and the e-mail system is a very complex and fragile. I’ll do all I can to ensure a smooth and successful upgrade because I understand the importance of the company’s e-mail.
* This upgrade has no effect on Citrix. Replacing Citrix is something that needs to be done in the near future.
* The old e-mail server and a server used to backup the e-mail server can be removed from the computer room. This eliminates two servers and will reduce the cost of electricity needed to keep them operating.
* An e-mail storage policy needs to be implemented and I suggest we start the policy with the new server.
  + We can’t retain all e-mail forever. We will eventually run out of space again at some point.
  + We need an e-mail retention policy for legal reasons and I recommend that the Legal Department formulize a written policy.
  + E-mails older than the policy retention date can be printed out or saved to PDF files if they must be kept.
* I would like to purchase a training book on Exchange 2010 so that I can take a test on it to get a Microsoft certification.

---- End of Proposal ---

Walter S. Hutsky Jr.