

Welcome to the NYExUG Feb 2010 Meeting

- **Group Details:** meetings (2nd Tue of every month) open to all, free, pizza dinner included, raffles at end of meeting, 2 mailing lists (announce – sign-up via emailing join@nyexug.com or meetup.com/exchange).
- **February Meeting** – Network Designs for Exchange roles in Exchange 2007/2010.
- **April Meeting** – Exchange DRM Security Vendor - Boldon James (military/enterprise vendor)
- **New Raffle Opportunities** (bring a new member and get an additional raffle ticket)
- **Meeting Topics Ideas** – let me know in person or via email ben@reefsolutions.com



Presented February 9, 2010 at NYExUG Meeting

Practical Network Designs for Exchange Roles in Exchange 2007/2010

Superscript numbers (e.g. word¹) throughout presentation are for additional reference information in back of presentation on Noted References page.



Ben Serebin
Network & Exchange Consultant
REEF Solutions (www.reefsolutions.com)
ben a t reefsolutions . c o m
<http://blog.reefsolutions.com>

About Ben Serebin

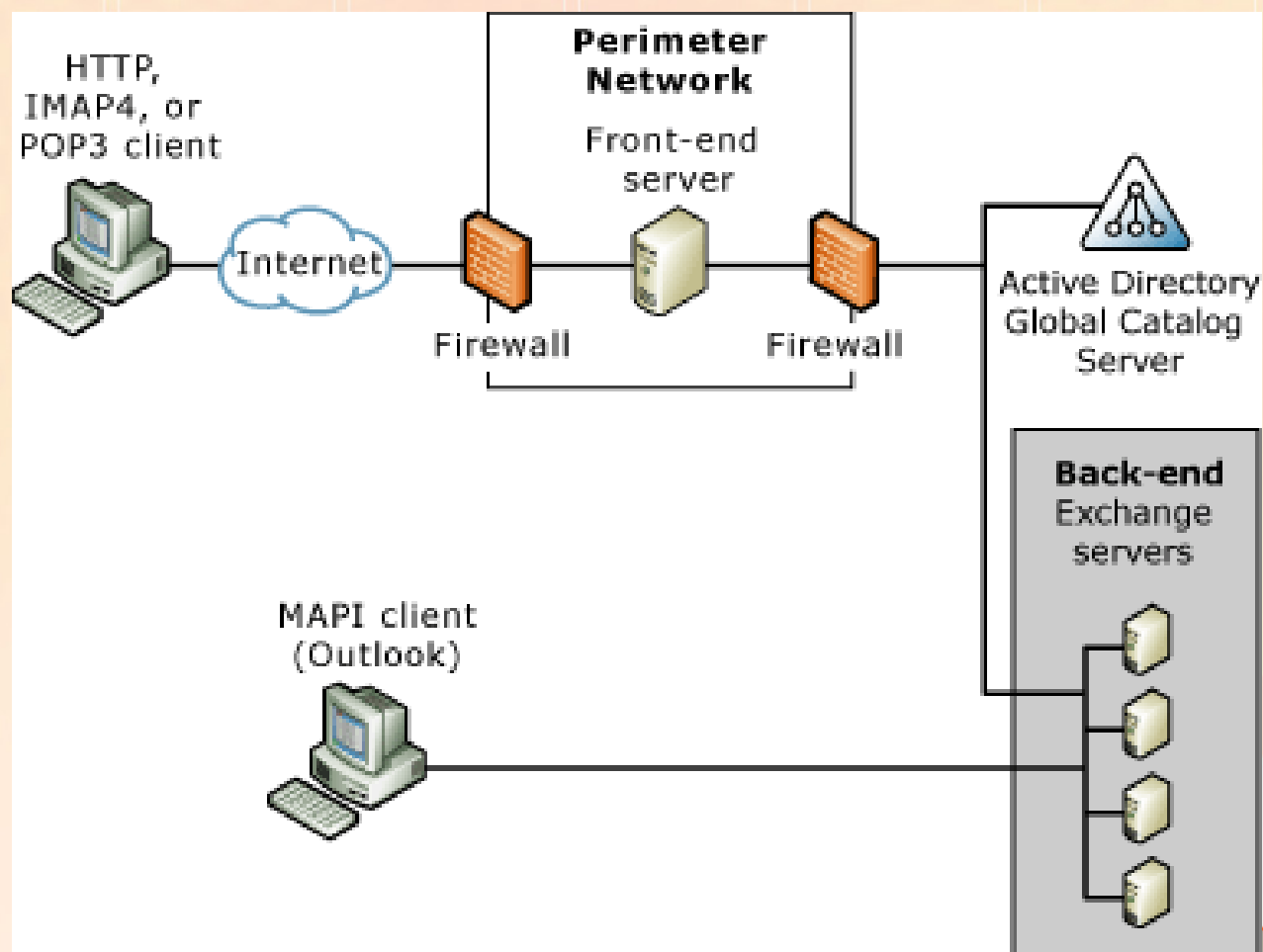
- Working in the IT sector since 1996
- Specialty is Exchange Server, Spam Filtering, DNS, & Wireless.
- Recently Completed Project Q4 09: Investigated deploying Exchange 2010, considering Amazon's cloud virtualization (EC2) for 2 Linux web-servers.
- Current Projects Q1 10: Reviewing geographic diverse Exchange backup solution using AppAssure 4.x release, researching using jumbo frames for iSCSI traffic, and deploying Exchange 2010 (considering using a HTC TouchPro2).
- Current Environment: Running Exchange 2007 Server on Windows 2008, Blackberry Enterprise Server 4.x, running on VMware ESXi 3.5. Current handheld email device is a BlackBerry Bold.
 - My PPTs are focused on conveying a tremendous amount of technical information in a short amount of time. If I had a presentation assistance, they would be prettier as well. So, any questions, do not hesitate to ask.

The Roles in Exchange 2003

- 2 roles (Front-End & Back-End)
- Front-End purpose to serve OWA & IMAP/POP3
- Back-End provides access to SMTP & Mailbox Data
- Primary Purpose of front-end is for clients with large amount of OWA users. Or clients with multiple Back-Ends in different offices to maintain quality OWA performance.

Network Design for Roles in Exchange 2003

- Front-End & Back-End Environments ¹



High Level of Roles 1-3 in Exchange 2007 & 2010

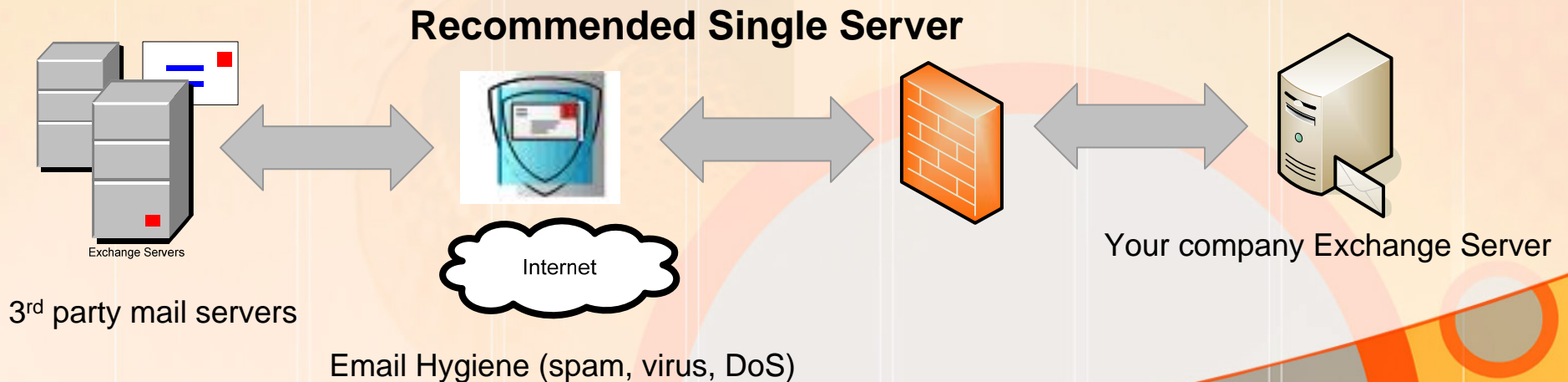
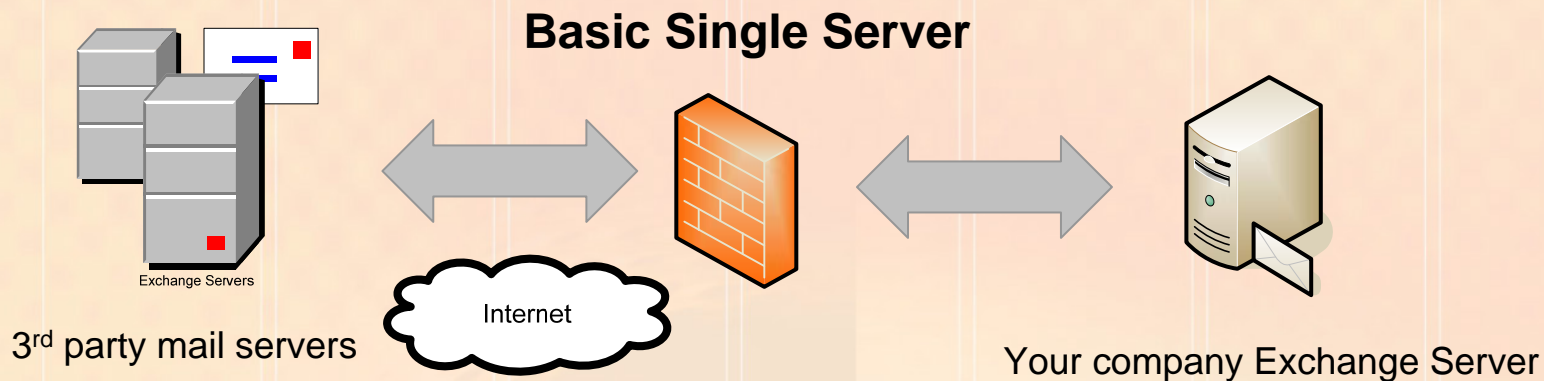
- 5 roles (Mailbox, Hub Transport, Client Access, Edge Transport, & Unified Messaging)
- Mailbox – used for storing end user mail and public folders. The Mailbox server role is responsible for hosting mailbox and public folder data. 2007 role provides MAPI access for Outlook clients.
- Hub Transport – handles mail routing to next hop
- Client Access – provides the other mailbox server protocol access apart from MAPI. Similar to Exchange 2003 FrontEnd server, it enables user to use an Internet browser (OWA), 3rd party mail client (POP3/IMAP4) and mobile device (ActiveSync) to access their mailbox.
- Required Roles for all deployments are: Mailbox, Transport, & Client Access.
- Mailbox, Transport, Client Access, and Unified Messaging roles can be combined or separated. All run on domain based servers.

High Level of Roles 4-5 in Exchange 2007 & 2010

- Final 2 roles (Edge Transport & Unified Messaging)
- Edge Transport – perimeter mail gateway server for hygiene and security enhancement.
- Unified Messaging –enables end users to access their mailbox, address book, & calendar using telephone & voice.
- Optional Roles (above). Edge role cannot be combined with others. 4 role server? Yes, but don't!
- UM Role requires additional licensing & specialized telephone hardware for phone system and handsets.
- Edge role must be run on a workgroup based server.

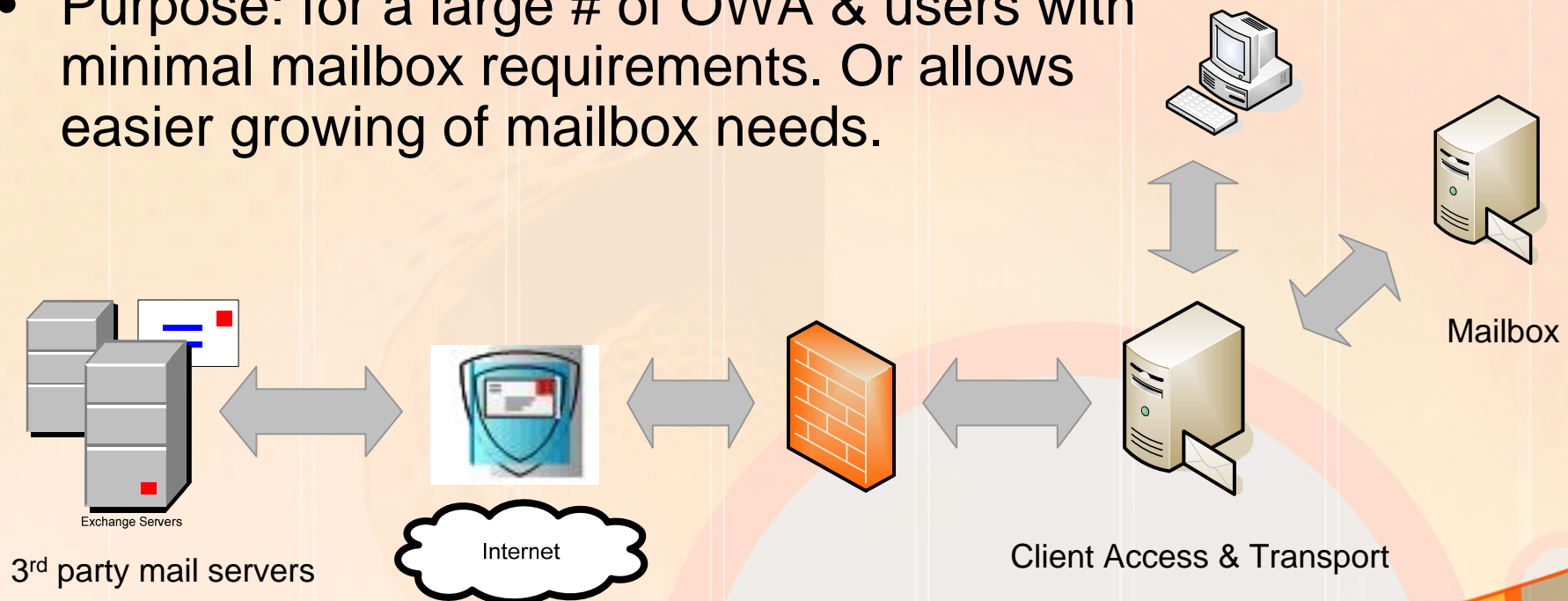
Single Server Design w/Exchange 2007/2010

- Roles will contain Mailbox, Transport, & Client Access.



Mailbox & Client Access Design w/Exchange 2010

- Separate Mailbox & Client Access Server. Allows for offloading network requests from mailbox. CAS would also contain Hub Transport Role.
- Purpose: for a large # of OWA & users with minimal mailbox requirements. Or allows easier growing of mailbox needs.



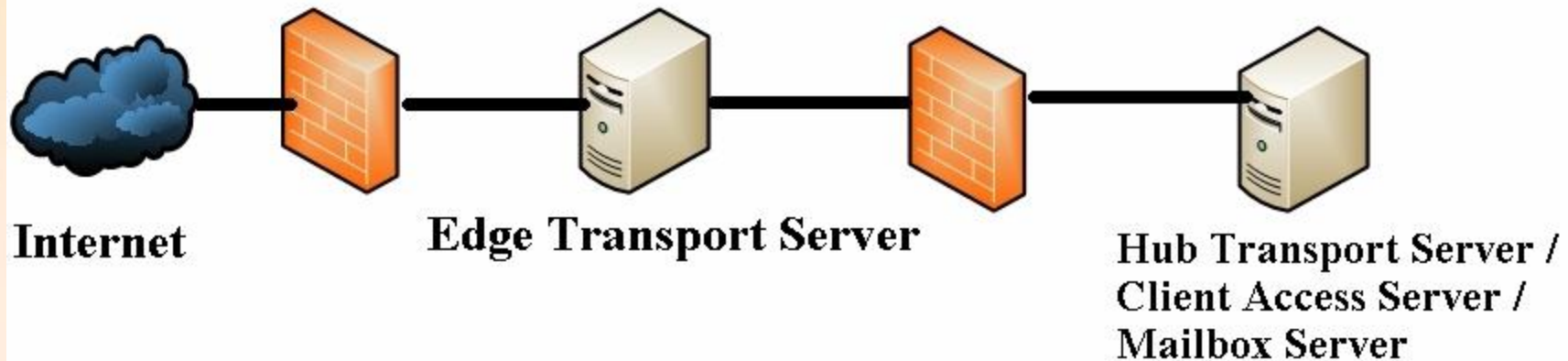
Email Hygiene (spam, virus, DoS)



Mailbox & Edge Design w/Exchange 2010

Benefits: mailbox not communicating with 3rd party hosts, spam/virus filtering via Microsoft Forefront, & non-domain based server.

Cons: Frequently more expensive than dedicated email security product or hosted solution, complicated setup compared to 3rd party solutions.

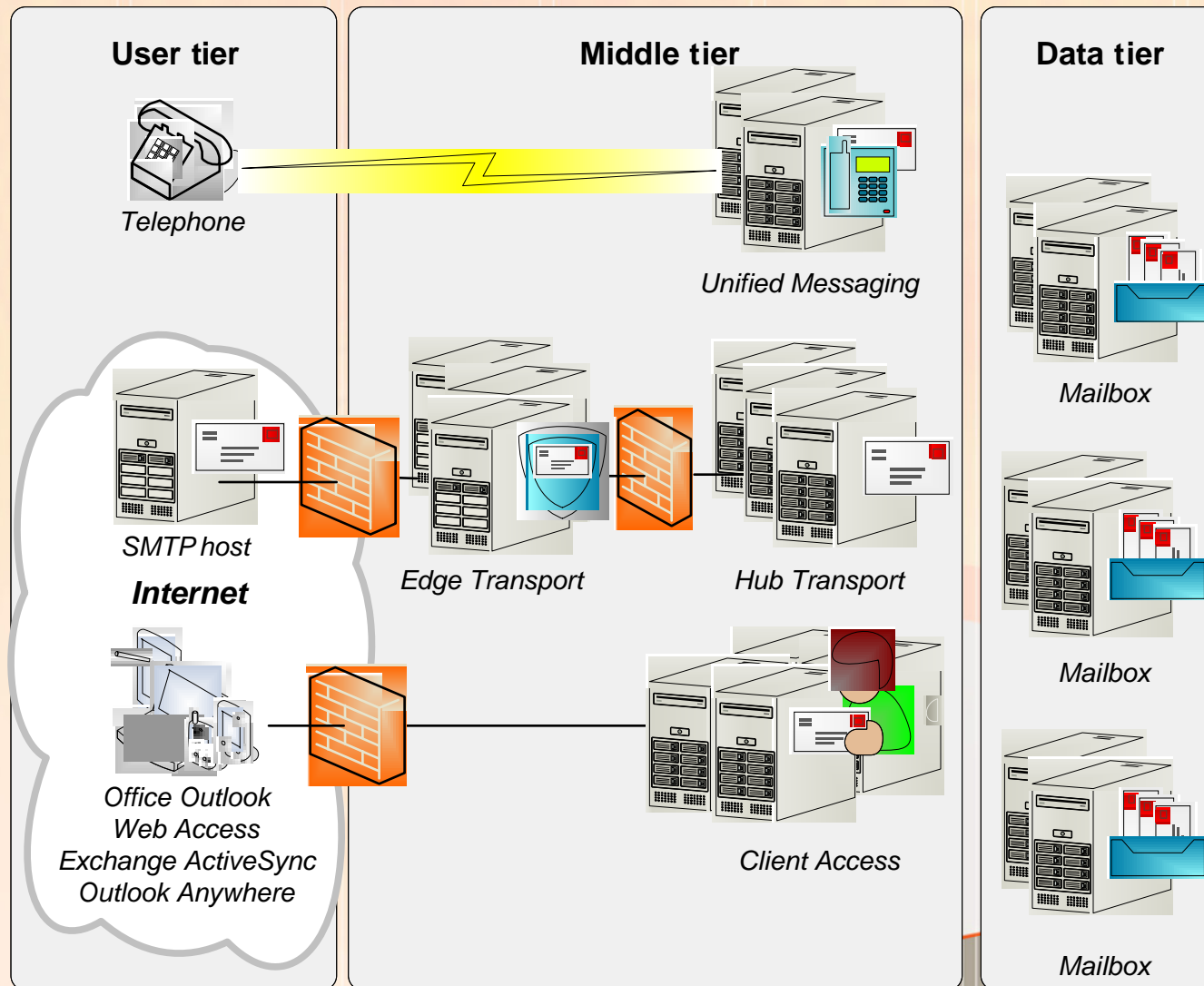


High Availability Design w/Exchange 2007/2010

- Hub Transport role can be configured to protect against lost messages in case of system failure (Shadow Redundancy).
- Mailbox role can utilize Database Availability Groups for in case of mail database failure.
- Benefits: High Availability
- Cons: Expensive and VERY complicated setup.

High Availability Design w/Exchange 2007/2010

Microsoft Slide ² - IT Showcase: Exchange Server 2007 Design and Architecture at Microsoft Technical White Paper



Noted References

- 1 – Front-End and Back-End Server Topology Guide for Microsoft Exchange Server 2003 and Exchange 2000
Server <http://www.microsoft.com/downloads/details.aspx?FamilyId=E64666FC-42B7-48A1-AB85-3C8327D77B70&displaylang=en>
- 2 - Microsoft Slide 2 - IT Showcase: Exchange Server 2007 Design and Architecture at Microsoft Technical White Paper.
<http://download.microsoft.com/download/0/e/8/0e89b8a0-f83b-4ea4-b373-cc987203452c/FCSDeploymentTWP.doc>

Thank you for attending the February 2010 NY Exchange User Group Meeting.

Raffles – do not forget, if you bring in new members, you 2x, 3x, or more your chances to win raffle prizes.

TechHit.com (Outlook add-ons) – raffling off any one of their products (SimplyFile [intelligent filing], EZ-Detach [easily detach multi-emails of attachments], MessageSave [backup, archive, save msgs], AutoRead [mark as read/remove new mail icon], & QuickJump [quickly open/move between Windows folders]).

Now for Question of the Month.....

Question & Answer of the Month

Q) For Exchange 2007, what needs to be backed up for Transport and Edge Servers?

See you next month...

A decorative graphic at the bottom of the slide. It features a horizontal band with a gradient from light orange to dark orange. Overlaid on this band are several vertical lines and a series of binary digits (0s and 1s) in a light color. To the right, there are several overlapping circles in shades of orange and grey, some with a darker center, creating a pattern that resembles a stylized 'E' or a series of data points.