Presented March 11, 2014 at NYExUG Meeting
Last Updated on March 11, 2014

Feature Exploration: Exchange 2013 Transport High Availability

** throughout presentation indicates additional information on reference page in back of presentation*

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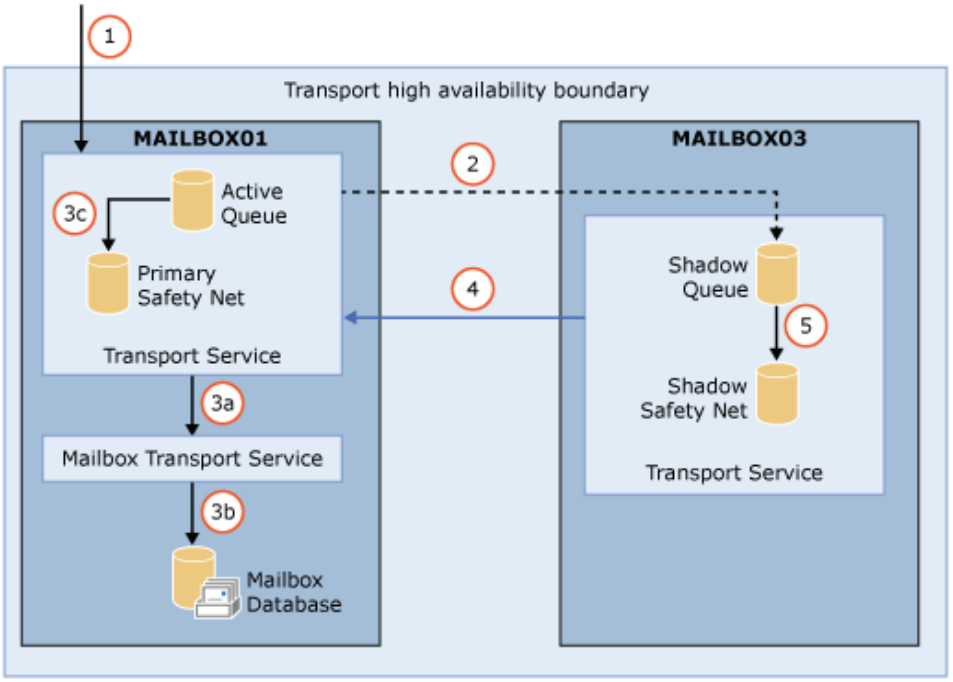
Shadow Redundancy Work Flow

1) Inbound Email outside of HA boundary
2) Duplicating Email to 2nd Server within boundary
3a) **Transport service to mailbox** transport service
3b) Mailbox **transport service delivers to local mailbox** database
3c) Mailbox01 **queues discard status for Mailbox03 for successful process**.
Mailbox01 moves copy into local Primary Safety Net.
4) Mailbox03 **polls** Mailbox01 for **discard status** of primary message
5) Mailbox03 determines Mailbox01 **successfully processed**, Mailbox03 moves the shadow message into the local Shadow Safety Net.



Reference: Microsoft TechNet Image

Safety Net Overview

- Formerly Transport Dumpster, renamed to help explain the functionality better.
- Safety Net stores messages that were successfully processed by Transport Service on mailbox server/DAG member
- [NEW] Safety Net is redundant (Primary & Shadow)
- [NEW] Supports DAG and non-DAG mailbox servers
- Transport Dumpster and Safety Net not fully compatible (2013 -> 2010, but not 2010 -> 2013)
- Once messages exits Exchange transport boundary, Safety 1 H W ¶ V M R E L V G R Q H

Safety Net Scenarios

- If messages are lost, the message resubmissions are initiated by Active Manager (same AM functionality ±run via Exchange Repilication service)
- Fully Automated & No Manual Intervention Needed

Primary Safety Net Originated

1) After failover (auto/manual) of a mailbox database in a DAG

2) Offline for a period of time or after you activate a lagged copy of a mailbox database

When Shadow Safety Net is Called

1) If Primary Safety Net fails to respond during message resubmission for 12 hours, Active Manager will issue broadcast to Shadow(s).

2) Activation of Shadow(s) could result in duplicate messages for internal and most likely external for period of request (DSNs & NDRs suppressed).

DSN = Delivery Status Notifications
NDR = Non-Delivery Reports

Safety Net Configuration Options* (*partial list)

- SafetyNetHoldTime – Successful messages are stored Safety Net (default value 2 days)

- ReplayLagTime – replaying log files to passive database copy (default value not set). 0< is a lagged copy functionality.

Tip: if you make this 2< increase SafetyNetHoldTime (14 day max)

- MessageExpirationTimeout – long ANY message are stored (default value 2 days)

- ShadowRedundancyEnabled – on/off for all transport servers (default is on)

Requirement: Safety Net requires Shadow Redundancy

Config FYI: some config is UI possible while others are CLI only

References Details

Overview of Transport High Availability
http://technet.microsoft.com/en-us/library/jj657506%28v=exchg.150%29.aspx

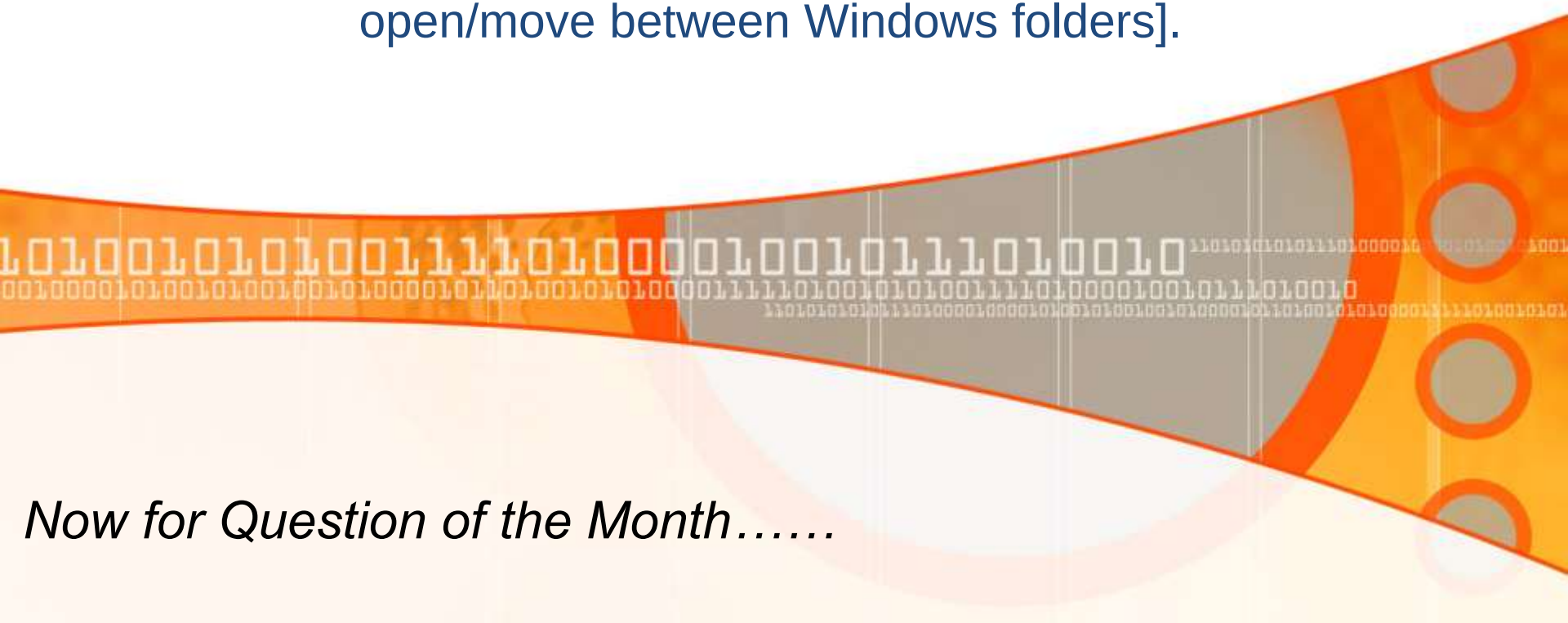
Safety Net Microsoft Overview
http://technet.microsoft.com/en-us/library/jj657495%28v=exchg.150%29.aspx

Safety Net Microsoft TechNet Configuration Options
http://technet.microsoft.com/en-us/library/jj657495%28v=exchg.150%29.aspx

Shadow Redundancy from Microsoft TechNet
http://technet.microsoft.com/en-us/library/dd351027%28v=exchg.150%29.aspx

Thank you for attending **tonight's NY** Exchange User Group Meeting.

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……