

**1. What is Exchange Server 2013 and its evolution?**

- Microsoft Exchange Server 2013 is an email, calendaring, and address book system that runs on a centralized Windows Server system
- Exchange 4.0 – 5.0 – 5.5 – 2000 – 2003 – 2007 – 2013

**2. What are the new features in Exchange server 2013**

- PFs do take advantage of the existing high availability and storage technologies of the mailbox store, using specially designed mailboxes to store both the hierarchy (the properties of the PFs and the structure in which they are organized) and the content (the actual data) of PFs.
- Site Mailbox was introduced in Exchange 2013
- Exchange Administration Center was introduced.
- New Managed Store completely rewritten in C# was introduced.

Ref: <http://technet.microsoft.com/en-us/library/jj150540%28v=exchg.150%29.aspx>  
<http://www.msexchange.org/articles-tutorials/exchange-server-2013/planning-architecture/exchange-2013-preview-public-folders-part1.html>

**3. What are the features removed from Exchange 2013 compared to legacy version of Exchange server**

- Exchange Management console was removed.
- Removal of storage group.
- Extensible Storage Engine (ESE) streaming backup APIs
- User Datagram Protocol (UDP) notifications
- Document Access, Message Flag, Spell Check, Search folder are removed from Outlook Web App
- Client authentication using Integrated Windows authentication (NTLM) for POP3 and IMAP4 users
- Managed Folder
- Export-Mailbox, Import-Mailbox & Move-Mailbox cmdlets

Ref: <http://technet.microsoft.com/en-us/library/jj619283%28v=exchg.150%29.aspx>

**4. What are the features still remains in Exchange Server 2013 that have not got removed out.**

- Microsoft still use Jet EDB Database Structure
- Exchange 2013 still uses the VSSBackup application programming for backup

**5. How many roles are there in Exchange Server 2013**

- There are two roles in Exchange Server 2013. 1. Client Access Server Role and 2. Mailbox Server Role
- There are three roles in Exchange Server 2013 SP1. 1. Client Access Server Role and 2. Mailbox Server Role 3. Edge Server Role

**6. What are the different editions in Exchange Server 2013 and how do you find them**

- Two server editions: Standard Edition and Enterprise Edition. The Exchange server edition can be found using the build number. PowerShell command : Get-ExchangeServer | ft identity, admin\*

Ref: <http://technet.microsoft.com/en-us/library/bb232170%28v=exchg.150%29.aspx>

**7. What is the latest service pack or patch available in Exchange server 2013**

- Exchange Server 2013 Service Pack 1 which got released on Feb 25 2014

**8. List the Exchange server 2013 SP1 License Types**

- **Server licenses** A license must be assigned for each instance of the server software that is being run. The Server license is sold in two server editions: Standard Edition and Enterprise Edition.
- **Client Access licenses (CALs)** Exchange 2013 also comes in two client access license (CAL) editions, which are referred to as a Standard CAL and an Enterprise CAL.

Ref: <http://office.microsoft.com/en-in/exchange/microsoft-exchange-server-licensing-licensing-overview-FX103746915.aspx>

### **9. What are the prerequisites needed to install exchange Server 2013 SP1 (CPU, Memory, Disk & OS )**

- **Microsoft Operating System:** Windows Server 2012 R2, Windows Server 2012 and Windows Server 2008 R2 with Service Pack 1 (SP1) operating system
- **Components:**
  - Microsoft .NET Framework 4.5
  - Windows Management Framework 4.0
  - Remote Tools Administration Pack
  - AD LDS for Exchange Server 2013 Edge Server Role
- **Memory**
  - Mailbox 8GB minimum
  - Client Access 4GB minimum
  - Mailbox and Client Access combined 8GB minimum
  - Edge Transport 4GB minimum
- **Disk space**
  - At least 30 GB on the drive on which you install Exchange
  - An additional 500 MB of available disk space for each Unified Messaging (UM) language pack
  - 200 MB of available disk space on the system drive
  - A hard disk that stores the message queue database on with at least 500 MB of free space.

Ref: <http://technet.microsoft.com/en-us/library/bb691354%28v=exchg.150%29.aspx>

### **10. Where Exchange Server stores the Exchange related information in Active Directory**

- **Domain Partition** – Mail enable recipient, groups and contact related to domain level are stored
- **Configuration Partition** – Stores the Exchange configuration information like, policies, global settings, address list, connectors and it contains the information related to forest level
- **Schema Partition** – stores the Exchange specific classes and attributes

Ref: <http://technet.microsoft.com/en-us/library/aa998561%28v=exchg.150%29.aspx>

### **11. What are the types of Active Directory deployment that server supported in Exchange Server 2013 deployment**

- Single Forest
- Multi Forest
- Resource Forest

### **12. Difference between Exchange 2013 on-premises, Online, office 365 and Windows Azure Powershell**

- The Exchange Online is able to manage the users and permission of Exchange service. The Office 365 (Windows Azure AD) is to manage the whole Office 365 service. Windows Azure can use to manage users, domain and other things which will affect the whole Office 365 service. It is not able to be used to manage Exchange service, Lync service and SharePoint service. To manage Exchange service, you need to use Exchange Online PowerShell to perform the activity.

Ref: <http://blogs.technet.com/b/exchange/archive/2012/09/19/comparing-exchange-online-and-exchange-server-2013.aspx>

<http://community.office365.com/en-us/forums/148/t/193946.aspx>

### **13. List out the purpose of running prepare schema and prepare AD switches in Exchange server 2013**

- Prepare Schema – After running the Prepare Schema switch, the Active directory will contain the classes and attributes required to support Exchange environment
- Prepare AD – after running the Prepare AD switch, new container will be created to hold the details of the information from server to databases to connectors. This process also created universal security groups to manage Exchange and sets appropriate permissions on objects to allow them to be managed

Ref: <http://technet.microsoft.com/en-us/library/bb125224%28v=exchg.150%29.aspx>

### **14. What happened to HT, UM and Edge role in Exchange Server 2013**

- The hub transport role and unified message role are split on the Client access server role and mailbox server role to perform the complete operation. Edge Server was launched again in the Exchange server 2013 service pack 1

Ref: <http://technet.microsoft.com/en-us/magazine/jj851175.aspx>  
<http://technet.microsoft.com/en-us/library/jj150569%28v=exchg.150%29.aspx>

### **15. How many user databases and recovery databases are supported in Exchange server 2013**

- Enterprise Edition can support 50 mounted databases per server in the Release to Manufacturing (RTM) and (CU1) versions, and 100 mounted databases per server in (CU2) and later versions; Standard Edition is limited to 5 mounted databases per server

Ref: <http://technet.microsoft.com/en-us/library/bb232170%28v=exchg.150%29.aspx>

### **16. What is the change in the MAPI connectivity with Exchange Server 2013**

- Microsoft removed MAPI over RPC in Exchange Server 2013 and they used RPC over HTTP. They also introduced MAPI Over HTTP in Exchange 2013 SP1 which works if you have Outlook 2013 SP1

Ref: <http://technet.microsoft.com/en-us/library/dn635177%28v=exchg.150%29.aspx>  
<http://technet.microsoft.com/en-us/library/bb123741%28v=exchg.150%29.aspx>

### **17. What is the purpose of Autodiscover service & Availability service**

- Auto discover service— The Autodiscover service does the following:
  - Automatically configures user profile settings for clients running Microsoft Office Outlook 2007, Outlook 2010, or Outlook 2013, as well as supported mobile phones.
  - Provides access to Exchange features for Outlook 2007, Outlook 2010, or Outlook 2013 clients that are connected to your Exchange messaging environment.
  - Uses a user's email address and password to provide profile settings to Outlook 2007, Outlook 2010, or Outlook 2013 clients and supported mobile phones. If the Outlook client is joined to a domain, the user's domain account is used.
- Availability service—The Availability service is the replacement for Free/Busy functionality responsible for making a user's calendar availability visible to other users making meeting requests.
  - Retrieve current free/busy information for Exchange 2013 mailboxes
  - Retrieve current free/busy information from other Exchange 2013 organizations
  - Retrieve published free/busy information from public folders for mailboxes on servers that have previous versions of Exchange
  - View attendee working hours
  - Show meeting time suggestions

Ref: <http://technet.microsoft.com/en-us/library/bb124251%28v=exchg.150%29.aspx>

Ref: <http://technet.microsoft.com/en-us/library/bb232134%28v=exchg.150%29.aspx>

#### **18. What are the DNS host record required to receiving email from the internet**

- A mail exchange (MX) record that contains information about which mail server the domain uses to receive mail.

#### **19. Explain the list of files will be there under Exchange 2013 database folder**

- \*.edb File - A mailbox database is stored as an Exchange database (.edb) file.
- Checkpoint file .chk, keeps track of which transactional logs moves into database files. Keep on check the log file entering the database in a current order
- Transactional log – eoo.log file which write the current transactions into transactional logs. If it reaches 1 MB, it will rename the log file into E00000001.log
- Temp.EDB – Temporary database file, which will process the transactional logs that are to be to write in .EDB Database file
- .JRS – Reserved Log files – if the size of the disk is full and you can't write any mails as transactional logs these files will help into action

#### **20. What you mean by database portability**

- Database portability is a feature that enables a Microsoft Exchange Server 2013 mailbox database to be moved to or mounted on any other Mailbox server in the same organization running Exchange 2013 that has databases with the same database schema version. Mailbox databases from previous versions of Exchange can't be moved to a Mailbox server running Exchange 2013. By using database portability, reliability is improved by removing several error-prone, manual steps from the recovery processes. In addition, database portability reduces the overall recovery times for various failure scenarios.

Ref: <http://technet.microsoft.com/en-us/library/dd876873%28v=exchg.150%29.aspx>

#### **21. What is the purpose of DAC**

- DAC mode is used to control the startup database mount behavior of a DAG. When DAC mode isn't enabled and a failure occurs that affects multiple servers in the DAG, and then when a majority of the DAG members are restored after the failure, the DAG will restart and attempt to mount databases. In a multi-datacenter configuration, this behavior could cause *split brain syndrome*, a condition that occurs when all networks fail, and DAG members can't receive heartbeat signals from each other. Split brain syndrome can also occur when network connectivity is severed between datacenters. Split brain syndrome is prevented by always requiring a majority of the DAG members (and in the case of DAGs with an even number of members, the DAG's witness server) to be available and interacting for the DAG to be operational. When a majority of the members are communicating, the DAG is said to have quorum.

Ref: <http://technet.microsoft.com/en-us/library/dd979790%28v=exchg.150%29.aspx>

#### **22. How to check backup is completed successfully for the Exchange 2013 mailbox database**

- Powershell Command - `Get-Mailboxdatabase -status | Format-List Identity, *backup*`

#### **23. What is the purpose of site mailbox in Exchange server 2013**

- Site mailbox requires Exchange 2013 and Sharepoint 2013 which has the functionally of shared storage through an Exchange 2013 mailbox for email messages and a SharePoint 2013 site for documents, and a management interface that addresses provisioning.

Ref: <http://technet.microsoft.com/en-us/library/jj150499%28v=exchg.150%29.aspx>

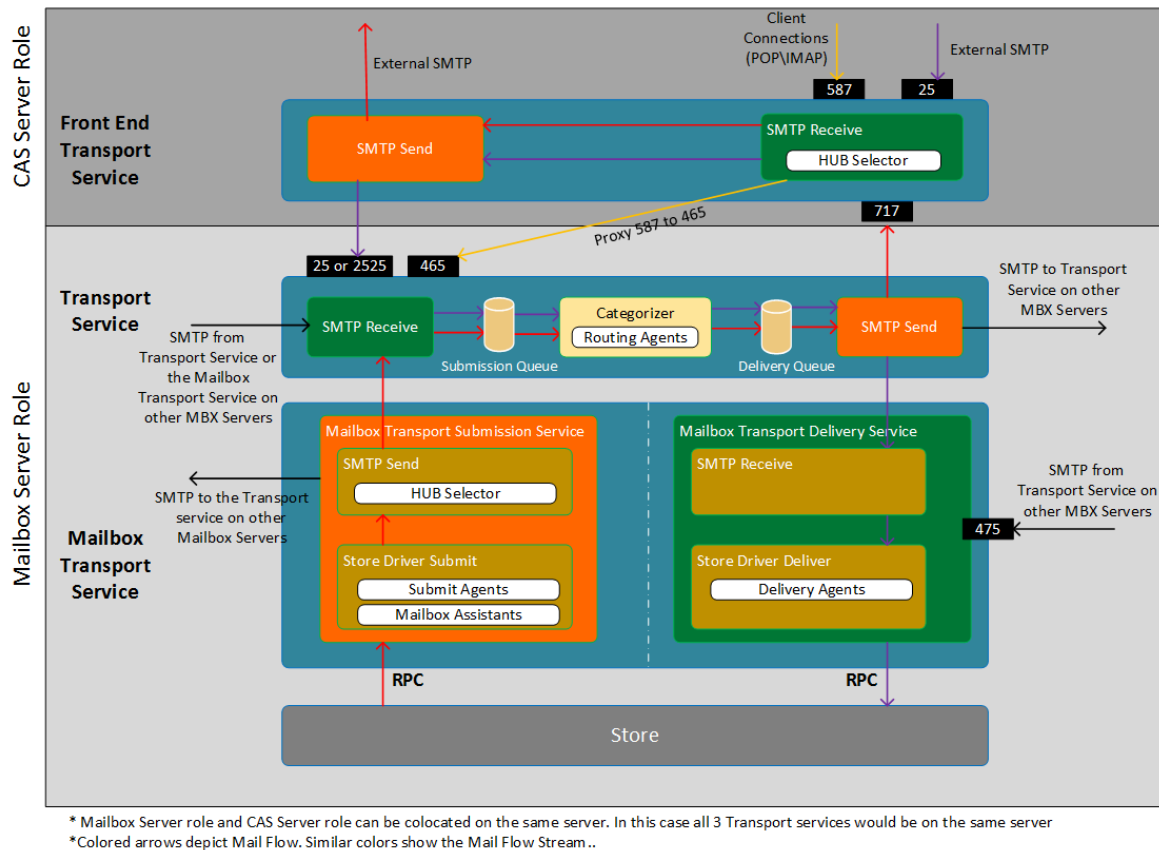
#### **24. What is the change on public folder in Exchange Server 2013**

- Public folder uses specially designed mailboxes to store both the public folder hierarchy and the content. This also means that there's no longer a public folder database. High availability for the public folder mailboxes is provided by a database availability group (DAG).

Ref: <http://technet.microsoft.com/en-us/library/jj150538%28v=exchg.150%29.aspx>

## 25. Explain the mail flow in Exchange server 2013

The below diagram provides more detail on the mail flow in Exchange server 2013. To have more detail look on <http://blogs.technet.com/b/rischwen/archive/2013/03/13/exchange-2013-mail-flow-demystified-hopefully.aspx>



## 26. What is S/MIME certificate and how to send email using S/MIME certificate

- S/MIME (Secure/Multipurpose Internet Mail Extensions) used for users to encrypt outgoing messages and attachments so that only intended recipients who have a digital identification (ID), also known as a certificate, can read them. With S/MIME, users can digitally sign a message, which provides the recipients with a way to verify the identity of the sender and that the message hasn't been tampered with.
- Setting up S/MIME for Outlook Web App needs Exchange 2013 SP1 which can be configured using Powershell command `Get-SmimeConfig` and `Set-SmimeConfig`

Ref: <http://technet.microsoft.com/en-us/library/bb738140%28v=exchg.141%29.aspx>

<http://office.microsoft.com/en-in/mac-outlook-help/send-a-digitally-signed-or-encrypted-message-HA102928381.aspx>

## 27. What is RBAC and list out the management role present in Exchange Server 2013

- Role Based Access Control (RBAC) is the permissions model used in Microsoft Exchange Server 2013. With RBAC, you don't need to modify and manage access control lists (ACLs), which was done in Exchange Server 2007. ACLs created several challenges in Exchange 2007, such as modifying ACLs without causing unintended consequences, maintaining ACL modifications through upgrades, and troubleshooting problems that occurred due to using ACLs in a nonstandard way.

- Organization Management
- View-Only Organization Management
- Recipient Management
- UM Management
- Discovery Management
- Records Management
- Server Management
- Help Desk
- Hygiene Management
- Compliance Management
- Public Folder Management
- Delegated Setup

Ref: <http://technet.microsoft.com/en-us/library/dd298183%28v=exchg.150%29.aspx>

### **28. How to enable Offline Outlook Web App (OWA) in Exchange Server 2013**

- Microsoft Outlook Web App (OWA) 2013 has the new option called "Offline" use. It allows you to use Webmail without being connected to the server. OWA in "Offline" mode can also be used when you have no Internet connection. When you turn on "Offline" use, a local copy of your mailbox data is created. The supported browsers are Internet Explorer 10, Safari 5 or Chrome 16.
- To set offline access for an Outlook Web App mailbox policy, use:
  - Set-OwaMailboxPolicy -AllowOfflineOn [NoComputers | AllComputers | PrivateComputers]
- To set offline access for an Outlook Web App virtual directory:
  - Set-OvaVirtualDirectory -AllowOfflineOn [NoComputers | AllComputers | PrivateComputers]

Ref: <http://blogs.technet.com/b/exchange/archive/2012/11/06/offline-access-in-outlook-web-app-2013.aspx>

### **29. How ActiveSync works in Exchange Server 2013**

- Microsoft ActiveSync provides for synchronized access to email from a handheld device, such as a Pocket PC or other Windows Mobile device. It allows for real-time send and receives functionality to and from the handheld, through the use of push technology.
- A mobile device that's configured to synchronize with an Exchange 2013 server issues an HTTPS request to the server. This request is known as a PING. The request tells the server to notify the device if any items change in the next 15 minutes in any folder that's configured to synchronize. Otherwise, the server should return an HTTP 200 OK message. The mobile device then stands by. The 15-minute time span is known as a heartbeat interval.
- If no items change in 15 minutes, the server returns a response of HTTP 200 OK. The mobile device receives this response, resumes activity (known as waking up), and issues its request again. This restarts the process.
- If any items change or new items are received within the 15-minute heartbeat interval, the server sends a response that informs the mobile device that there's a new or changed item and provides the name of the folder in which the new or changed item resides. After the mobile device receives this response, it issues a synchronization request for the folder that has the new or changed item. When synchronization is complete, the mobile device issues a new PING request and the whole process starts over.

Ref: <http://technet.microsoft.com/en-us/library/aa997252%28v=exchg.150%29.aspx>

### **30. What is the purpose of retention policy tag**

- Retention tags are used to apply retention settings to folders and individual items such as e-mail messages and voice mail. These settings specify how long a message remains in a mailbox and the action to be taken when the message reaches the specified retention age. When a message reaches its retention age, it's moved to the user's In-Place Archive or deleted.
- Unlike managed folders (the MRM feature introduced in Exchange Server 2007), retention tags allow users to tag their own mailbox folders and individual items for retention. Users no longer have to file items in managed folders provisioned by an administrator based on message retention requirements.

Ref: <http://technet.microsoft.com/en-us/library/dd297955%28v=exchg.150%29.aspx>

### **31. What is the advantage of mailbox movement in Exchange Server 2013**

- It's online mailbox movement where we don't user intervention to close their outlook while moving the mailbox between exchange server or databases

Ref: <http://technet.microsoft.com/en-us/library/jj150543%28v=exchg.150%29.aspx>

### **32. What are PowerShell cmdlet used to check the mailbox connectivity with Exchange Server 2013**

- Test-Mapiconnectivity
- Test-Outlookconnectivity
- Test-ImapConnectivity
- Test-PopConnectivity

Ref: <http://technet.microsoft.com/en-us/library/bb123681%28v=exchg.150%29.aspx>  
<http://technet.microsoft.com/en-us/library/dd638082%28v=exchg.150%29.aspx>  
<http://technet.microsoft.com/en-us/library/bb738126%28v=exchg.150%29.aspx>  
<http://technet.microsoft.com/en-us/library/bb738143%28v=exchg.150%29.aspx>

### **33. How to determine the Exchange server 2013 health status**

- Test-ServiceHealth
- Get-ServerHealth -Identity Server01
- Test-ReplicationHealth -Identity MBX1

Ref: <http://technet.microsoft.com/en-us/library/aa998852%28v=exchg.150%29.aspx>  
<http://technet.microsoft.com/en-us/library/jj218703%28v=exchg.150%29.aspx>  
<http://technet.microsoft.com/en-us/library/bb691314%28v=exchg.150%29.aspx>

### **34. Difference between proxy and re-direction terminology in Exchange Server 2013**

- Microsoft Client Access server can act as a proxy for other Client Access servers within the organization. This is useful when multiple Client Access servers exist in different Active Directory sites in an organization, and at least one of those sites isn't exposed to the Internet.
- A Client Access server can also perform redirection for Microsoft Office Outlook Web App URLs and for Exchange ActiveSync devices. Redirection is useful when users connect to a Client Access server that isn't in their local Active Directory site, or if a mailbox has moved between Active Directory sites. It's also useful if users should actually be using a more effective URL. For example, users should be using a URL that's closer to the Active Directory site in which their mailbox resides.

Ref: <http://blogs.technet.com/b/exchange/archive/2013/01/25/exchange-2013-client-access-server-role.aspx>

### **35. How to check Exchange 2013 autodiscover service**

- To verify the auto discover use the Microsoft Remote Connectivity Analyzer - <https://testconnectivity.microsoft.com/>
- Test-OutlookWebServices -identity:Rajis@mail.com | ft \* -AutoSize -Wrap

Ref: <http://technet.microsoft.com/en-us/library/cc539050.aspx>

### **36. What is the new feature added in Exchange 2013 Transport rule**

- New predicates and actions are added in Exchange 2013
  - New predicates
    - AttachmentExtensionMatchesWords Used to detect messages that contain attachments with specific extensions.

- AttachmentHasExecutableContent Used to detect messages that contain attachments with executable content.
  - HasSenderOverride Used to detect messages where the sender has chosen to override a DLP policy restriction.
  - MessageContainsDataClassifications Used to detect sensitive information in the message body and any of the attachments. For a list of data classifications available, see Sensitive Information Types Inventory.
  - MessageSizeOver Used to detect messages whose overall size is greater than or equal to the specified limit.
  - SenderIPRanges Used to detect messages sent from a specific set of IP address ranges.
- New actions
    - GenerateIncidentReport Generates an incident report that is sent to a specified SMTP address. The action also has a parameter called IncidentReportOriginalMail that accepts one of two values: IncludeOriginalMail or DoNotIncludeOriginalMail.
    - NotifySender Controls how the sender of a message that goes against a DLP policy is notified. You can choose to simply inform the sender and route the message normally, or you can choose to reject the message and notify the sender.
    - StopRuleProcessing Stops the processing of all subsequent rules on the message.
    - ReportSeverityLevel Sets the specified severity level in the incident report. Values for the action are: Informational, Low, Medium, High, and Off.
    - RouteMessageOutboundRequireTLS Requires Transport Layer Security (TLS) encryption when routing this message outside your organization. If TLS encryption isn't supported, the message is rejected and not delivered.

Ref: <http://technet.microsoft.com/en-us/library/jj150483%28v=exchg.150%29.aspx>

### **37. How to move the database from one drive to another disk**

- Using Exchange 2013 Powershell command: Move-DatabasePath

Ref: <http://technet.microsoft.com/en-us/library/bb124742%28v=exchg.150%29.aspx>

### **38. What are the Outlook client version and browser supported in Exchange Server 2013**

- Outlook 2013
- Outlook 2010 SP1 with November 2012 Cumulative Update
- Outlook 2007 SP3 with November 2012 Cumulative Update
- Entourage 2008 for Mac, Web Services Edition
- Outlook for Mac 2011

Ref: <https://social.technet.microsoft.com/wiki/contents/articles/845.outlook-versions-supported-by-exchange-200720102013online.aspx>

### **39. List the different type of mailboxes can be created in Exchange Server 2013**

- User Mailbox
- Room Mailbox
- Shared Mailbox
- Site Mailbox
- Linked User Mailbox

Ref: <http://technet.microsoft.com/en-us/library/bb201680%28v=exchg.150%29.aspx>

### **40. List out the service used for CAS server and Mailbox Server**

- Microsoft Exchange 2013 Mailbox Services



• MExchangeADTopology.exe	Microsoft Exchange Active Directory Topology
• MExchangeAntispamUpdate.exe	Microsoft Exchange Anti-spam Update
• MExchangeDagMgmt.exe	Microsoft Exchange DAG Management
• MExchangeDelivery.exe	Microsoft Exchange Mailbox Transport Delivery
• MExchangeDiagnostics.exe	Microsoft Exchange Diagnostics
• MExchangeEdgeSync.exe	Microsoft Exchange EdgeSync
• MExchangeFastSearch.exe	Microsoft Exchange Search
• MExchangeHM.exe	Microsoft Exchange Health Manager
• MExchangeIMAP4BE.exe	Microsoft Exchange IMAP4 Backend
• MExchangeIS.exe	Microsoft Exchange Information Store
• MExchangeMailboxAssistants.exe	Microsoft Exchange Mailbox Assistants
• MExchangeMailboxReplication.exe	Microsoft Exchange Mailbox Replication
• MExchangeMigrationWorkflow.exe	Microsoft Exchange Migration Workflow
• MExchangePOP3BE.exe	Microsoft Exchange POP3 Backend
• MExchangeRepl.exe	Microsoft Exchange Replication
• MExchangeRPC.exe	Microsoft Exchange RPC Client Access
• MExchangeServiceHost.exe	Microsoft Exchange Service Host
• MExchangeSubmission.exe	Microsoft Exchange Mailbox Transport Submission
• MExchangeThrottling.exe	Microsoft Exchange Throttling
• MExchangeTransport.exe	Microsoft Exchange Transport
• MExchangeTransportLogSearch.exe	Microsoft Exchange Transport Log Search
• MExchangeUM.exe	Microsoft Exchange Unified Messaging

➤ Exchange 2013 Client Access Services

• MExchangeADTopology.exe	Microsoft Exchange Active Directory Topology
• MExchangeDiagnostics.exe	Microsoft Exchange Diagnostics
• MExchangeFrontEndTransport.exe	Microsoft Exchange Frontend Transport
• MExchangeHM.exe	Microsoft Exchange Health Manager
• MExchangeIMAP4.exe	Microsoft Exchange IMAP4
• MExchangePOP3.exe	Microsoft Exchange POP3
• MExchangeServiceHost.exe	Microsoft Exchange Service Host
• MExchangeUMCR.exe	Microsoft Exchange Unified Messaging Call Router

#### **41. What is the service needed to move mailbox in Exchange 2013**

- Move requests are processed by two services:
- Microsoft Exchange Mailbox Replication service (MRS)
  - Microsoft Exchange Mailbox Replication Proxy (MRSPProxy) service

Ref: <http://www.msexchange.org/articles-tutorials/exchange-server-2013/mobility-client-access/exchange-2013-local-mailbox-moves-part1.html>

#### **42. What is the purpose of File Share Witness**

- A witness server is a server outside a DAG that's used to achieve and maintain quorum when the DAG has an even number of members. DAGs with an odd number of members don't use a witness server. All DAGs with an even number of members must use a witness server. The witness server can be any computer running Windows Server. There is no requirement that the version of the Windows Server operating system of the witness server matches the operating system used by the DAG members

Ref: <http://technet.microsoft.com/en-us/library/dd638104%28v=exchg.150%29.aspx>

#### **43. List out the different type of quorum model used in Exchange server 2013**

- Even - Node and File Share Majority quorum mode

- Odd - Majority quorum mode
- DAGs with an even number of members use the failover cluster's Node and File Share Majority quorum mode, which employs an external witness server that acts as a tie-breaker. In this quorum mode, each DAG member gets a vote. In addition, the witness server is used to provide one DAG member with a weighted vote (for example, it gets two votes instead of one). The cluster quorum data is stored by default on the system disk of each member of the DAG, and is kept consistent across those disks. However, a copy of the quorum data isn't stored on the witness server. A file on the witness server is used to keep track of which member has the most updated copy of the data, but the witness server doesn't have a copy of the cluster quorum data. In this mode, a majority of the voters (the DAG members plus the witness server) must be operational and able to communicate with each other to maintain quorum. If a majority of the voters can't communicate with each other, the DAG's underlying cluster loses quorum, and the DAG will require administrator intervention to become operational again.
- DAGs with an odd number of members use the failover cluster's Node Majority quorum mode. In this mode, each member gets a vote, and each member's local system disk is used to store the cluster quorum data. If the configuration of the DAG changes, that change is reflected across the different disks. The change is only considered to have been committed and made persistent if that change is made to the disks on half the members (rounding down) plus one. For example, in a five-member DAG, the change must be made on two plus one members, or three members total.

Ref: <http://technet.microsoft.com/en-us/library/dd979799%28v=exchg.150%29.aspx>

#### **44. Difference between Primary Active Manager and Standby Active Manager**

- Primary Active Manager which runs inside the Microsoft Exchange Replication Service used to notify and react in case of server failure. The PAM owns the cluster quorum resource and holds the information about active, passive and mounted databases.
- Standby Active Manager provides information of the server hosting the active copy of a mailbox database to the Client Access or Transport services.

Ref: <http://technet.microsoft.com/en-us/library/dd776123%28v=exchg.150%29.aspx>

#### **45. What is the purpose of safety-net and transport dumpster**

- Transport dumpster helps to protect against data loss by maintaining a queue of successfully delivered messages that hadn't replicated to the passive mailbox database copies in the DAG. When a mailbox database or server failure required the promotion of an out-of-date copy of the mailbox database, the messages in the transport dumpster were automatically resubmitted to the new active copy of the mailbox database.
- The transport dumpster has been improved in Exchange 2013 and is now called Safety Net.

Similarity between Safety Net and transport dumpster in Exchange 2010:

- Safety Net is a queue that's associated with the Transport service on a Mailbox server. This queue stores copies of messages that were successfully processed by the server.
- You can specify how long Safety Net stores copies of the successfully processed messages before they expire and are automatically deleted. The default is 2 days.

Here's how Safety Net is different in Exchange 2013:

- Safety Net doesn't require DAGs. For Mailbox servers that don't belong to a DAGs, Safety Net stores copies of the delivered messages on other Mailbox servers in the local Active Directory site.
- Safety Net itself is now redundant, and is no longer a single point of failure. This introduces the concept of the Primary Safety Net and the Shadow Safety Net. If the Primary Safety Net is unavailable for more than 12 hours, resubmit requests become shadow resubmit requests, and messages are re-delivered from the Shadow Safety Net.
- Safety Net takes over some responsibility from shadow redundancy in DAG environments. Shadow redundancy doesn't need to keep another copy of the delivered message in a shadow queue while it waits for the delivered message to

replicate to the passive copies of mailbox database on the other Mailbox servers in the DAG. The copy of the delivered message is already stored in Safety Net, so the message can be resubmitted from Safety Net if necessary.

- In Exchange 2013, transport high availability is more than just a best effort for message redundancy. Exchange 2013 attempts to guarantee message redundancy. Because of this, you can't specify a maximum size limit for Safety Net. You can only specify how long Safety Net stores messages before they're automatically deleted.

Ref: <http://technet.microsoft.com/en-us/library/jj657495%28v=exchg.150%29.aspx>

#### **46. What is the purpose of crimson log channel in Exchange Server 2013**

- The HighAvailability channel contains events related to startup and shutdown of the Microsoft Exchange Replication service and other components that run within it, such as Active Manager or VSS writer for example. The HighAvailability channel is also used by Active Manager to log events related to Active Manager role monitoring and database action events, such as a database mount operation and log truncation, and to record events related to the DAG's underlying cluster.
- The MailboxDatabaseFailureItems channel is used to log events associated with any failures that affect a replicated mailbox database.

Ref: <http://www.msexchange.org/kbase/ExchangeServerTips/ExchangeServer2013/ManagementAdministration/exchange-2013-crimson-channel-event-logs.html>

#### **47. How EWS plays their role in Exchange Server 2013**

- The Exchange Web Service holds the below list of features
  - eDiscovery
  - Archiving
  - Personas
  - Unified Contact Store
  - Retention Policies
  - User Photos
  - Mail Apps for Outlook Management
  - Propose new meeting time

Ref: <http://msdn.microsoft.com/en-us/library/office/jj190903%28v=exchg.150%29.aspx>

#### **48. What is Outlook Anywhere and how to configure in email client**

- In Microsoft Exchange Server 2013, the Outlook Anywhere feature, formerly known as RPC over HTTP, lets clients who use Microsoft Outlook 2013, Outlook 2010, or Outlook 2007 connect to their Exchange servers from outside the corporate network or over the Internet using the RPC over HTTP Windows networking component. This topic describes the Outlook Anywhere feature and lists the benefits of using Outlook Anywhere. The Windows RPC over HTTP Proxy component, which Outlook Anywhere clients use to connect, wraps remote procedure calls (RPCs) with an HTTP layer. This allows traffic to traverse network firewalls without requiring RPC ports to be opened. In Exchange 2013, this feature is enabled by default, because all Outlook connectivity takes place over Outlook Anywhere.
  - On the Tools menu, click Account Settings, select the Exchange account, and then click Change.
  - Click More Settings, and then click the Connection tab- Under Outlook Anywhere,
  - Select the Connect to Microsoft Exchange using HTTP check box.
  - To specify a proxy server, click Exchange Proxy Settings.

Ref: <http://technet.microsoft.com/en-us/library/bb123741%28v=exchg.150%29.aspx>

#### **49. How to set Out-of-Office by Exchange admin when user is on vacation**

- Using Exchange 2013 Powershell command - Set-MailboxAutoReplyConfiguration

- Example: Set-MailboxAutoReplyConfiguration -Identity 'Rajis' -StartTime '03/27/2014 19:30' -AutoReplyState Enabled -EndTime '03/29/2014 07:00' -InternalMessage 'I am on vacation and will respond to your message after I return' -ExternalMessage 'I am on vacation' -ExternalAudience 'Known'

Ref: <http://technet.microsoft.com/en-us/library/dd638217%28v=exchg.150%29.aspx>

#### **50. Difference between accepted domain and remote domain in Exchange Server 2013**

- Remote domains are SMTP domains that are external to your Microsoft Exchange organization. You can create remote domain entries to define the settings for message transferred between your Exchange organization and specific external domains. The settings in the remote domain entry for a specific external domain override the settings in the default remote domain that normally apply to all external recipients. The remote domain settings are global for the Exchange organization
- An accepted domain is any SMTP namespace for which a Microsoft Exchange Online organization sends or receives email. Accepted domains include those domains for which the Exchange organization is authoritative. An Exchange organization is authoritative when it handles mail delivery for recipients in the accepted domain. Accepted domains also include domains for which the Exchange organization receives mail and then relays it to an email server that's outside the organization for delivery to the recipient.

Ref: <http://technet.microsoft.com/en-us/library/jj673041%28v=exchg.150%29.aspx>