

Microsoft® Official Course



Module 6

Planning and Configuring Message Transport

Microsoft®

Module Overview

- Overview of Message Transport and Routing
- Planning and Configuring Message Transport
- Managing Transport Rules

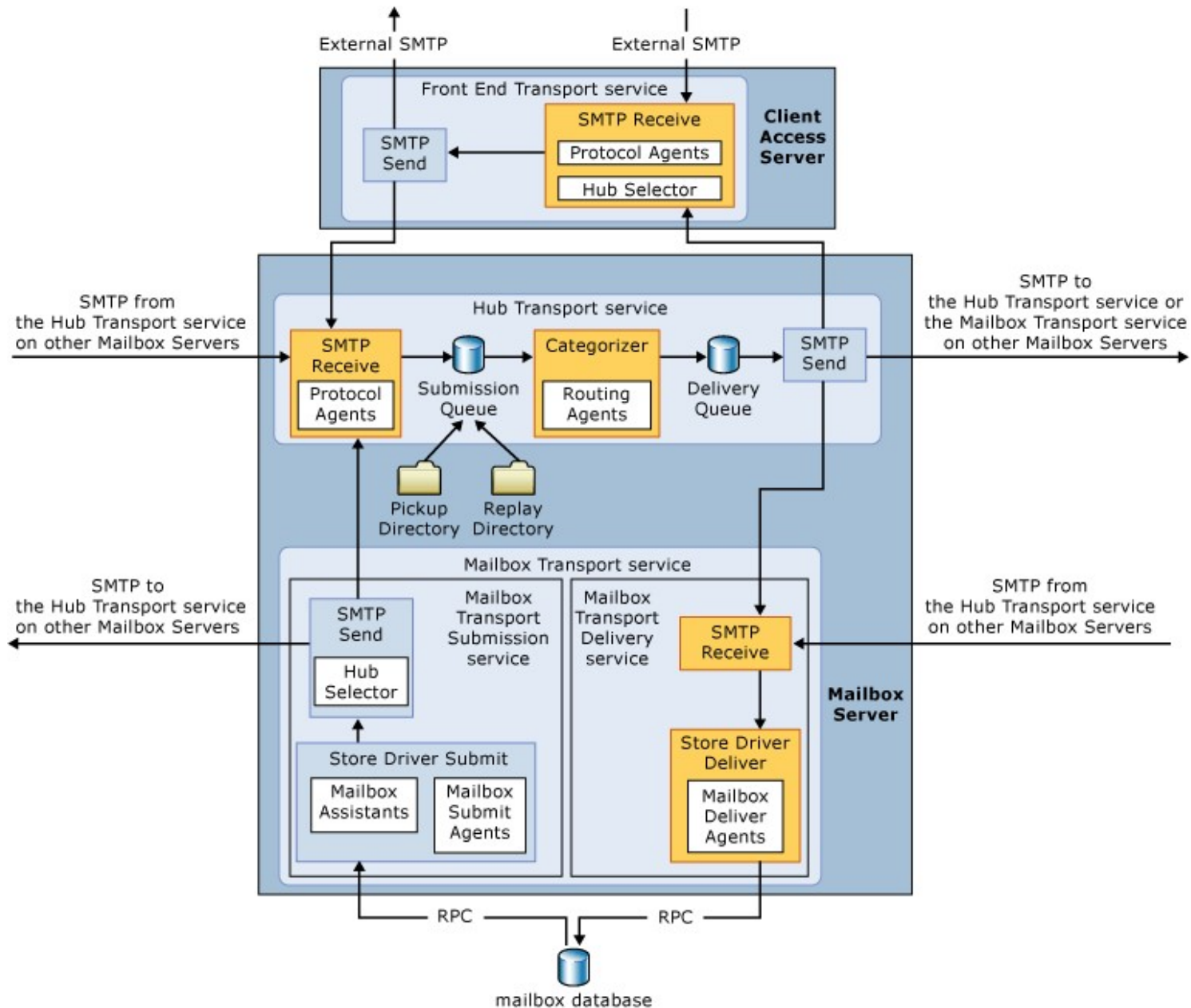
Lesson 1: Overview of Message Transport and Routing

- Message Transport Services
- Message Transport Components
- Message-Routing Changes in Exchange Server 2013
- Routing Destinations and Delivery Groups
- Routing in the Front End Transport Service
- Routing in the Mailbox Transport Service
- Modifying the Default Message Flow
- Tools for Troubleshooting SMTP Message Delivery
- Demonstration: How to Troubleshoot SMTP Message Delivery
- What Are Transport Agents?

Message Transport Services

- Message Transport Services:
 - Front End Transport service
 - Runs on the Client Access server role
 - Performs SMTP proxying
 - Hub Transport service
 - Runs on the Mailbox Server role
 - Routes messages between the Front End Transport Service and the Mailbox Transport Service
 - Mailbox Transport service
 - Runs on the Mailbox Server role
 - Consists of two components: Mailbox Transport Submission and Mailbox Transport Delivery
 - Is the only service that handles RPC communication with the database

Message Transport Components



Message-Routing Changes in Exchange Server 2013

Changes in message routing in Exchange 2013 are:

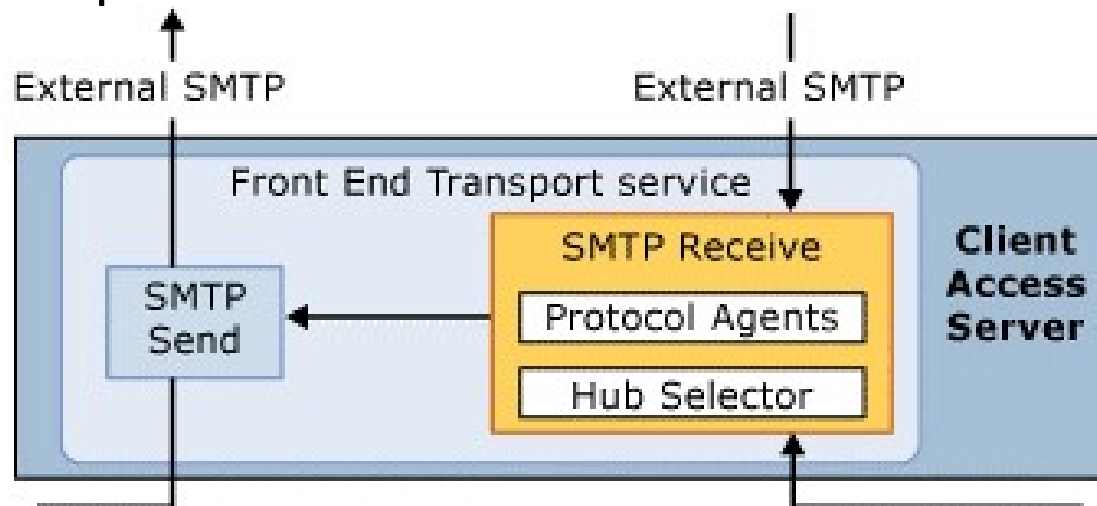
- Routing is aware of DAGs
- Transport service runs on Mailbox Server
- Queuing for remote destinations is more precise
- Linked connectors have been deprecated

Routing Destinations and Delivery Groups

- Routing destinations:
 - Mailbox database
 - Connector
 - Distribution group expansion server
- Delivery Groups:
 - Routable DAG
 - Mailbox delivery group
 - Connector source servers
 - AD DS site
 - Server list

Routing in the Front End Transport Service

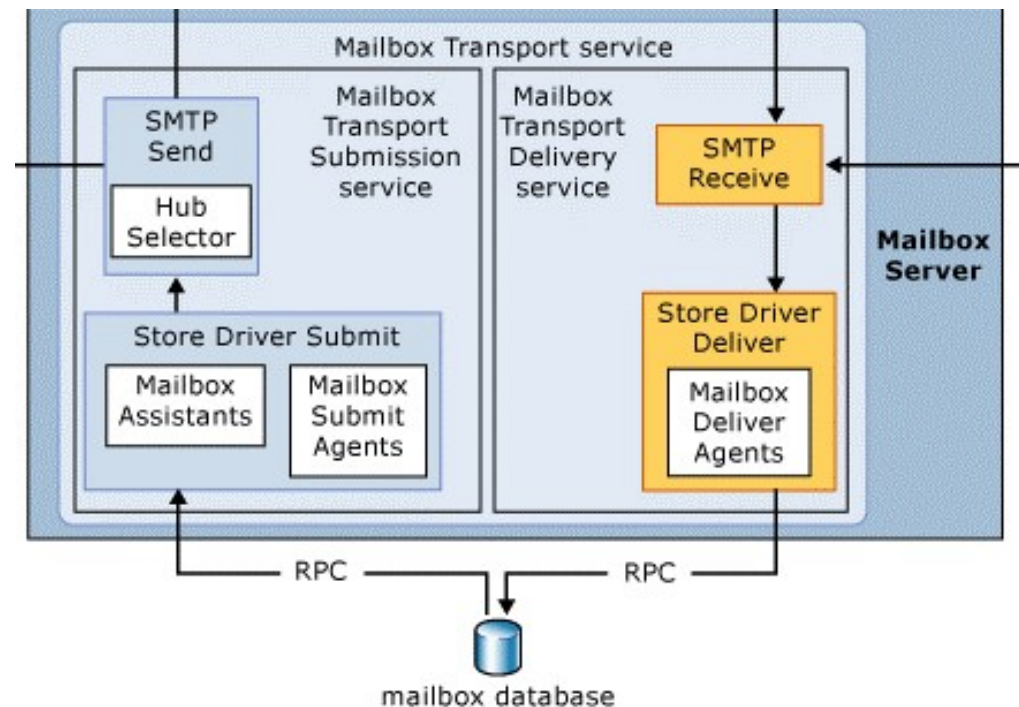
- Front End Transport Service acts as a SMTP proxy for all incoming and outgoing connections
- It communicates only with Hub Transport service on the Mailbox server
- You can use the following delivery groups:
 - Routable DAG
 - Mailbox delivery group
 - AD DS site



Routing in the Mailbox Transport Service

Mailbox Transport service:

- Is stateless and runs on each Mailbox server
- Communicates with the Hub Transport service and the local mailbox database
- You can use following delivery groups:
 - Routable DAG
 - Mailbox delivery group
 - AD DS site



Modifying the Default Message Flow

- You can modify default message flow by performing the following:
 - Configuring Hub Sites
 - Set-ADSite –Identity sitename –HubSiteEnabled \$true cmdlet
 - Configuring Exchange-Specific Routing Costs
 - Set-AdSiteLink –Identity ADsitelinkname – ExchangeCost value
 - Configuring Expansion Servers for Distribution Groups

Tools for Troubleshooting SMTP Message Delivery

- Queue Viewer
 - Use to view and manage undelivered messages
- Message Tracking & Tracking Log Explorer
 - Use to confirm message delivery
- Protocol Logging
 - Use to provide detailed protocol-level information
- Telnet
 - Use to check if the SMTP port responds, or to directly send a SMTP mail to a connector
- Remote Connectivity Analyzer website
 - Use to test connectivity to Exchange services from the Internet

Demonstration: How to Troubleshoot SMTP Message Delivery

- In this demonstration, you will see how to use SMTP troubleshooting tools





What Are Transport Agents?

- Transport agents process email messages that pass through the transport pipeline
- Default Transport agents:
 - Transport Rule agent
 - Journaling agent
 - Active Directory Rights Management Services Prelicensing agent
- It is possible to create and install custom transport agents

Lesson 2: Planning and Configuring Message Transport

- Planning Exchange Messaging Transport
- Reviewing Mail-Flow Settings
- Planning Accepted Domains and Remote Domains
- Creating and Configuring Accepted and Remote Domains
- What Is an SMTP Connector?
- How to Create and Configure SMTP Connectors
- What Are Foreign Connectors?

Planning Exchange Messaging Transport

- You can manage message transport on:
 - Client Access server
 - Mailbox server
 - Edge Transport server
 - Non-Microsoft SMTP Gateway
- When planning message transport consider:
 - Email domains
 - Point that initially accepts SMTP connections
 - SMTP traffic inspection
 - SMTP relaying needs
 - SMTP traffic inside your organization
 - Secure SMTP traffic

Demonstration: Reviewing Mail-Flow Settings

- In this demonstration, you will see available options for managing message flow

Planning Accepted Domains and Remote Domains

- Accepted domains define SMTP domain names for which the Exchange server will accept email
- Accepted domains can be:
 - Authoritative domains
 - Internal relay domains
 - External relay domains
- Remote domains define SMTP domains that are external to your Exchange organization
- You can set following properties for Remote domains:
 - Out-of-office message delivery
 - Message format options including acceptable character sets

Demonstration: Creating and Configuring Accepted and Remote Domains

- In this demonstration, you will see how to create new accepted and remote domains

What Is an SMTP Connector?

- SMTP connectors are Exchange Server components that support one-way SMTP connections
- Default SMTP Receive connectors:
 - Default <server name> (MBX)
 - Client Proxy <server name> (MBX)
 - Default FrontEnd <server name> (CAS)
 - Outbound Proxy Front End <server name> (CAS)
 - Client Frontend <server name> (CAS)
- No default SMTP Send connectors are created, so they must be created manually

Demonstration: How to Create and Configure SMTP Connectors

- In this demonstration, you will see how to create and configure SMTP connectors



What Are Foreign Connectors?

- To send messages to non-SMTP messaging system, you can use the Foreign connectors
- Foreign connectors use Drop folder and file transfer mechanism
- To create and manage Foreign connectors, use:
 - New-ForeignConnector
 - Set-ForeignConnector
 - Get-ForeignConnector
- Consider using delivery agents as an alternative for foreign connectors

Lesson 3: Managing Transport Rules

- What Are Transport Rules?
- Configuring Transport Rules
- Planning Transport Rules
- Demonstration: Creating Transport Rules
- What Are Data-Loss Prevention Policies?
- Demonstration: Configuring Data Loss Protection Policies

What Are Transport Rules?

- Transport rules restrict message flow or modify message contents for messages in transit
- Transport rules have the following characteristics:
 - They are stored in the AD DS Configuration partition
 - They are applied by all Mailbox servers
 - They are used to apply compliance requirements

Configuring Transport Rules

- Transport rules have the following components that you should configure:
 - **Conditions**
 - Specify which email message components are used to identify the email messages
 - **Actions**
 - Specify the processes to be applied to messages
 - **Exceptions**
 - Specify which email messages to exclude from having an action applied
 - **Predicates**
 - Are used by conditions and exceptions to define what part of an email message will be examined

Planning Transport Rules

- When planning for transport rules:
 - Plan conditions and exceptions carefully
 - Plan for transport rule priority and order
 - Use regular expressions to check message contents
 - Test the application of transport rules to avoid rule conflicts or duplication
 - Plan for transport rule limitations with encrypted and digitally signed messages
 - Document the transport rule configurations

Demonstration: Creating Transport Rules

- In this demonstration, you will see how to create a Transport rule in the Exchange Administration Center



What Are Data-Loss Prevention Policies?

- Data Loss Protection policies enforce compliance requirements for business-critical data being sent by email
- When implementing Data Loss Protection you can choose to:
 - Use the Data Loss Protection templates provided by Microsoft
 - Use policy file created by third-party
 - Create a custom policy
- Policy Tips can notify users if they are violating policy before they send email

Demonstration: Configuring Data Loss Protection Policies

- In this demonstration, you will see how to create custom Data Loss Protection policies

Lab: Planning and Configuring Message Transport

- Exercise 1: Configuring Message Transport
- Exercise 2: Troubleshooting message delivery
- Exercise 3: Configuring Transport Rules and Data-Loss Prevention Policies

Logon Information

20341A-LON-DC1

20341A-LON-CAS1

20341A-LON-CAS2

20341A-LON-MBX1

20341A-LON-CL1

User name: Adatum\Administrator

Password: Pa\$\$w0rd

Estimated Time: 40 minutes

Lab Scenario

You are a messaging administrator in A. Datum Corporation, which is a large multinational organization that has offices in several cities. Your organization has deployed Exchange 2013. You need to configure Exchange Server to send messages to the Internet and receive messages from the Internet. You also need to ensure that you can troubleshoot message transport, if necessary. At the end, you need to implement some configure message Transport rules, according to the corporate security policy.

Lab Review

- What would you need to configure to enable outbound Internet email from each A. Datum location?
- A user reports that she sent a message to a user in another company two hours ago, and the message has not arrived. How would you troubleshoot this?

Module Review and Takeaways

- Review Question
- Tools
- Best Practice
- Common Issues and Troubleshooting Tips