



**Passerelles
numériques**
A Gateway for Life

CHAPTER 04

Mail Server (Exchange 2016)

50 years ago



Sender



Receiver

Now



Sender



Receiver

Overview

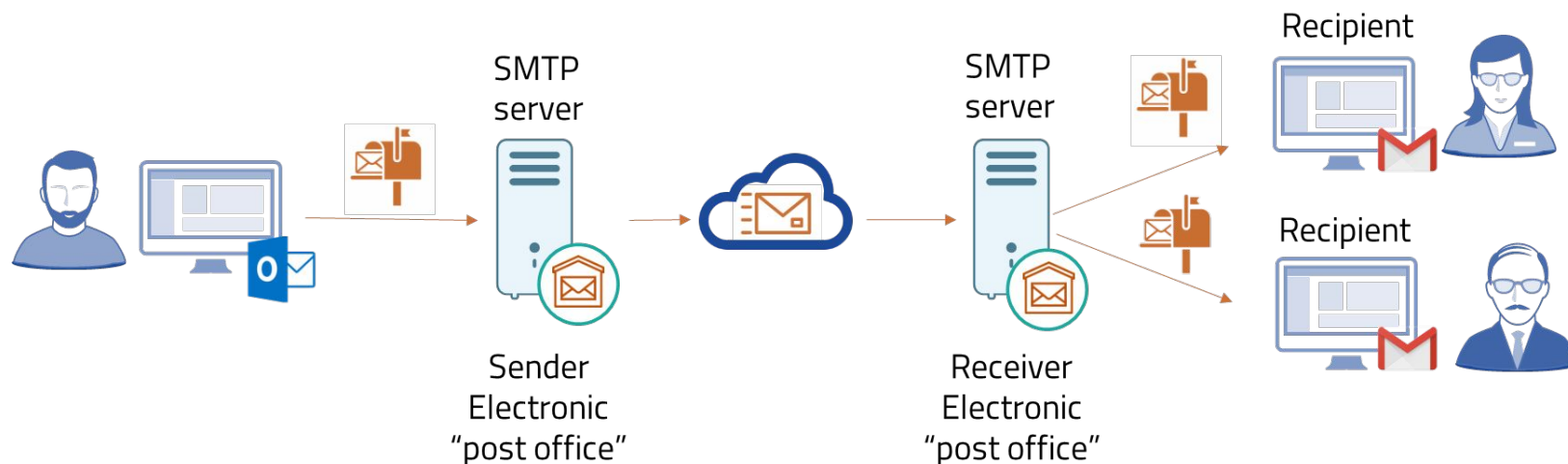
Objectives

- ❖ Introduction to Mail Server
- ❖ The advantages of Mail Server in Local
- ❖ Understand the Function of the **Three Mail Agents**
- ❖ Requirement for setup and configure a mail server
- ❖ Setup Mail server (Exchange 2016)

Mail server

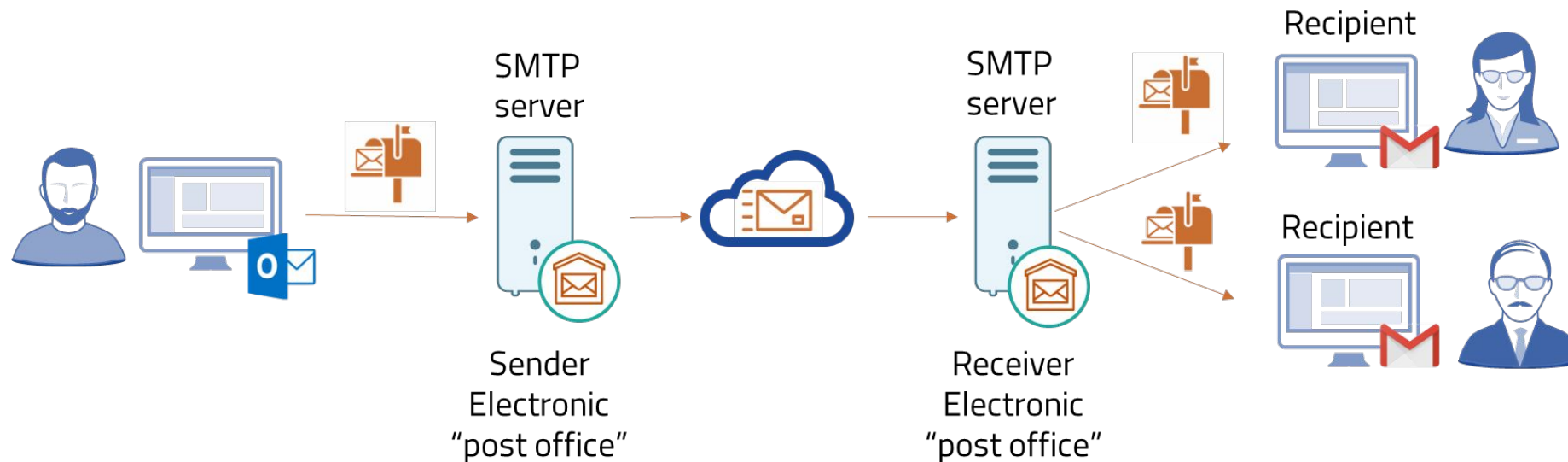
- ❖ **Mail server**: is essentially a computer system that sends and receives email message.

So, when you send an email, your message usually goes through a series of email servers until it reaches the recipient.



Introduction to Mail Server

- ❖ **Mail server** handles and delivers e-mail over a network, usually over the Internet.
- ❖ Mail server receives incoming e-mail from local users (people within the same domain) and remote senders and forward outgoing e-mail to recipient.



Introduction to Mail Server

- ❖ The responsible of Mail server in Local
 - Send Email from local to local
 - Send Email from local to Internet (public)
 - Receive Email from Internet (public) forward to local
 - Store mail box for each user

Group Presentation

◆ Topic:

1. Local Mail server (Microsoft/Linux)
2. Google Mail
3. Yahoo Mail
4. Zoho Mail
5. Cpanel as Mail Server

✓ To do:

1. Slide presentation
2. Agenda
 - Definition
 - Advantages and disadvantages
 - Requirement
 - Description of each Mail service

15
minutes



Understand the Function of the Three Mail Agents



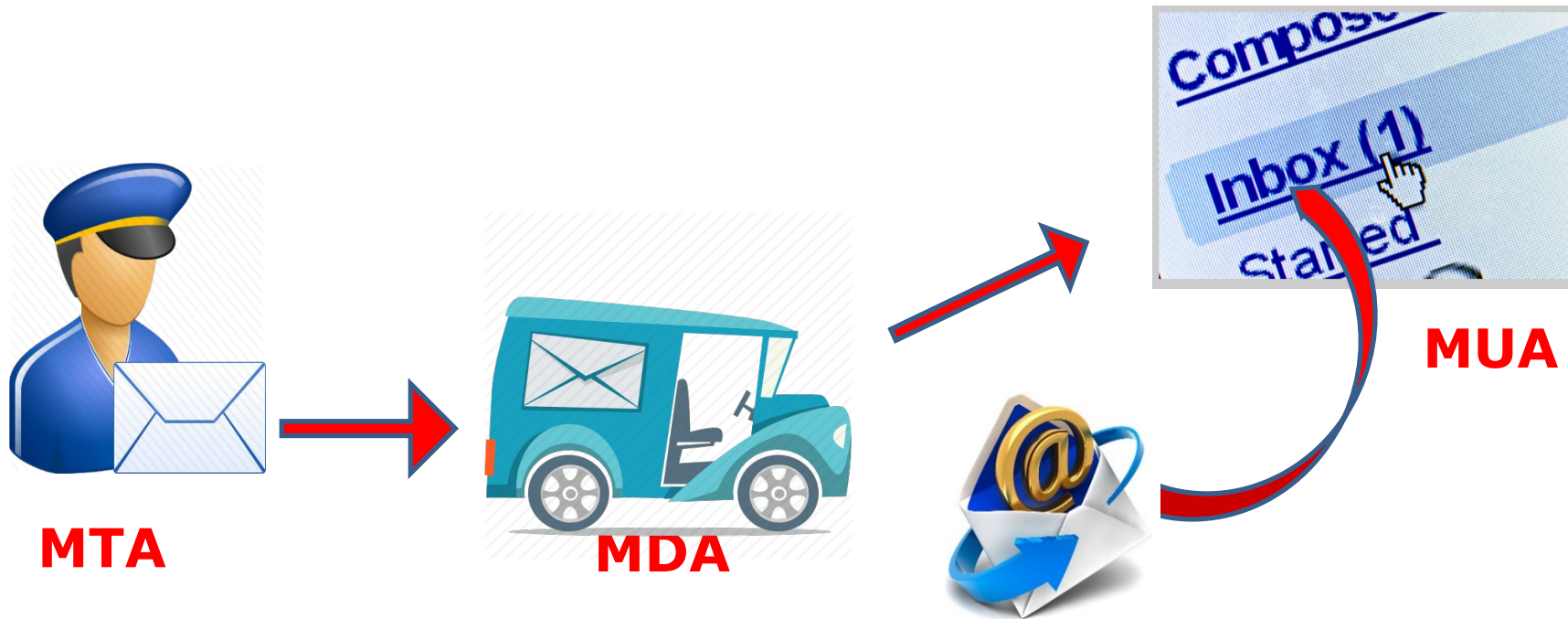
The program or software that automatically organize email messages are called **Agent**.

There are three types of agents:

- Mail Transfer Agent (**MTA**)
- Mail Delivery Agent (**MDA**)
- Mail User Agent (**MUA**)



Understand the Function of the Three Mail Agents

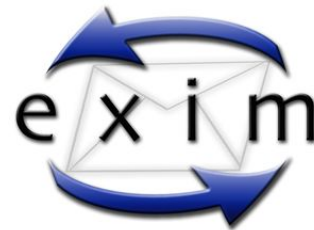


Understand the Function of the Three Mail Agents



MTA (**Mail Transfer Agent**) is software that transfers electronic mail messages from one computer to another. An MTA implements at the client (sending) portions of the *Simple Mail Transfer (SMTP) Protocol*.

- Sendmail
- Postfix
- Exim
- Qmail



Understand the Function of the Three Mail Agents

MDA ([Mail Delivery Agent](#) or [Message Delivery Agent](#)) is a computer software component that is responsible for the delivery for e-mail messages to a local recipient's mailbox, which stores it in right location.

- Dovecot
- Procmail
- Cyrus IMAP

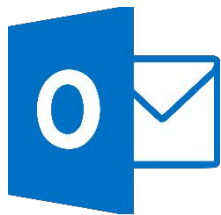


Understand the Function of the Three Mail Agents



MUA (**M**ail **U**ser **A**gent or an email client, or email reader) it's a computer program used to access and manage a user's email. The MUA reads saved messages and passes new messages to the MTA.

- Outlook
- Thunderbird
- Webmail (Squirrelmail, roundcube, hordemail...)

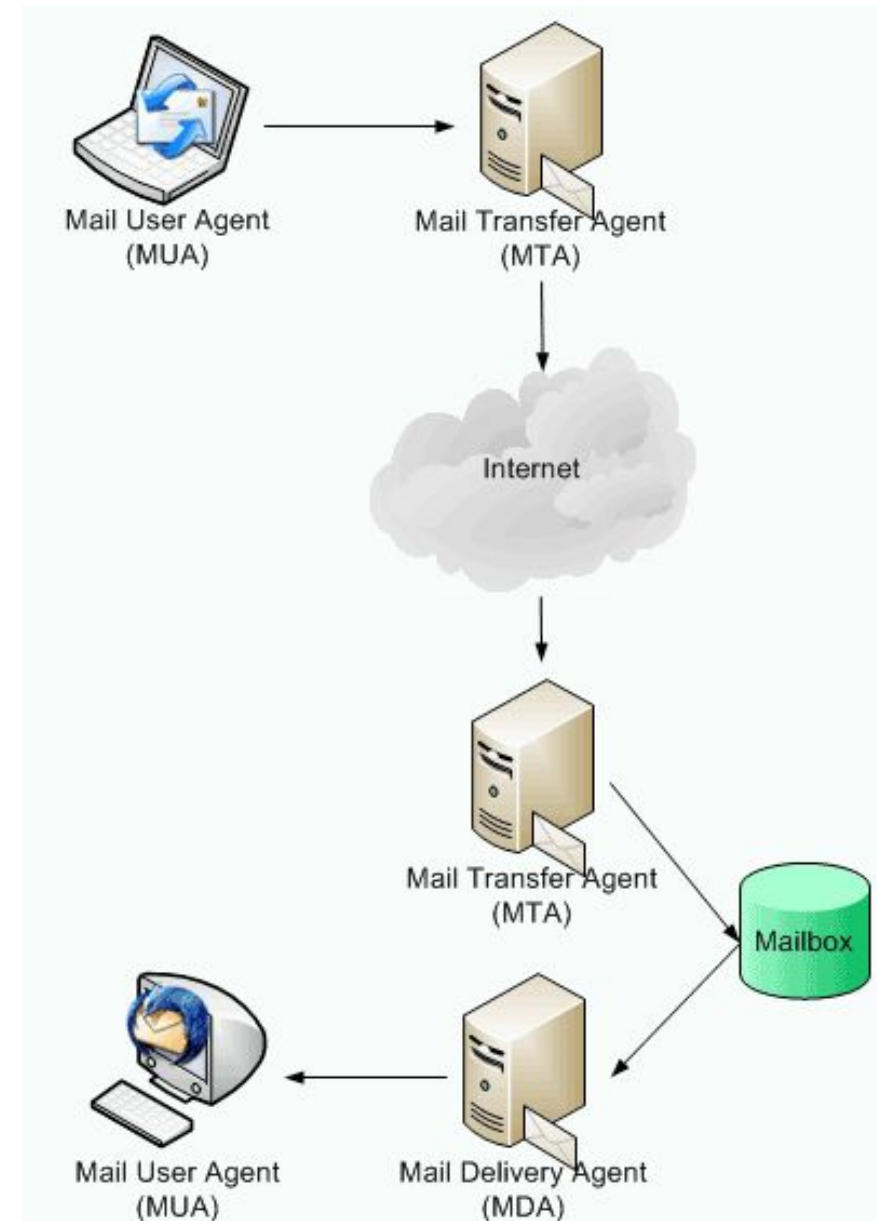


Understand the Function of the Three Mail Agents



The Mail Cycle

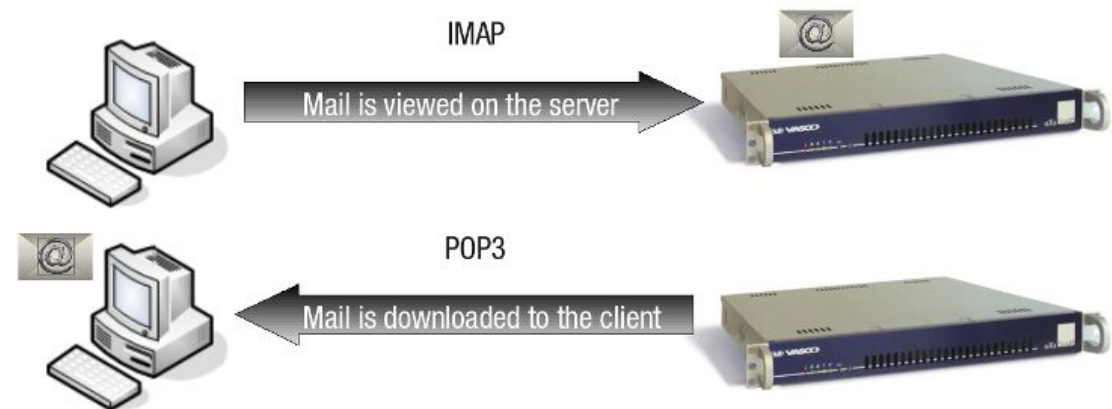
1. Sender use **MUA** to compose the email by enter the email address of recipient then click “**Send**” button.
2. The mail is sent to a **MTA** which is responsible for sending the email to the recipient's **MTA** by using SMTP protocol.
3. The recipient's **MTA** receives the email and passes it on to a **MDA**.
4. Now, this message is transferred to the **MDA** and then it is transferred to the recipient's local computer.
MDA handle mails for delivery by using either **POP3** or **IMAP** protocol.



Understand the Function of the Three Mail Agents

❖ **If POP3 is used**, the email is transferred to the client computer; additionally it can be kept on the server.

❖ **If IMAP is used**, all emails are kept on the server and the **MUA** only checks emails on this server. The emails are not transferred to the client computer.



Understand the Function of the Three Mail Agents

Choose **POP3** or **IMAP** in each explanation below:

- ❖ Download mail into local computer and keep in mailbox server.
- ❖ Run on port 143
- ❖ Run on Port 110
- ❖ View mail from mailbox server
- ❖ Sending email to User-A
- ❖ Receiving email from User-A

POP3

IMAP

POP3

IMAP



Requirement for setup and configure a mail server

To setup or configure mail server you need to have

- Setup AD DS
- Identified Domain name
- DNS configuration



Exchange Server 2016

Practice

❖ **MS. Exchange 2016:**

1. Install Mail Exchange
2. Test access Mail Service
3. Create mailbox for users
4. Configure E-mail client
5. Share calendar
6. Set limit message size
7. Set limit mailbox size
8. Add mailing list (mail group)
9. Trust certificate
10. Offline address book



Exchange Server 2016

Any Question?



Exchange Server 2016