

# SMTP

Simple Mail Transfer Protocol



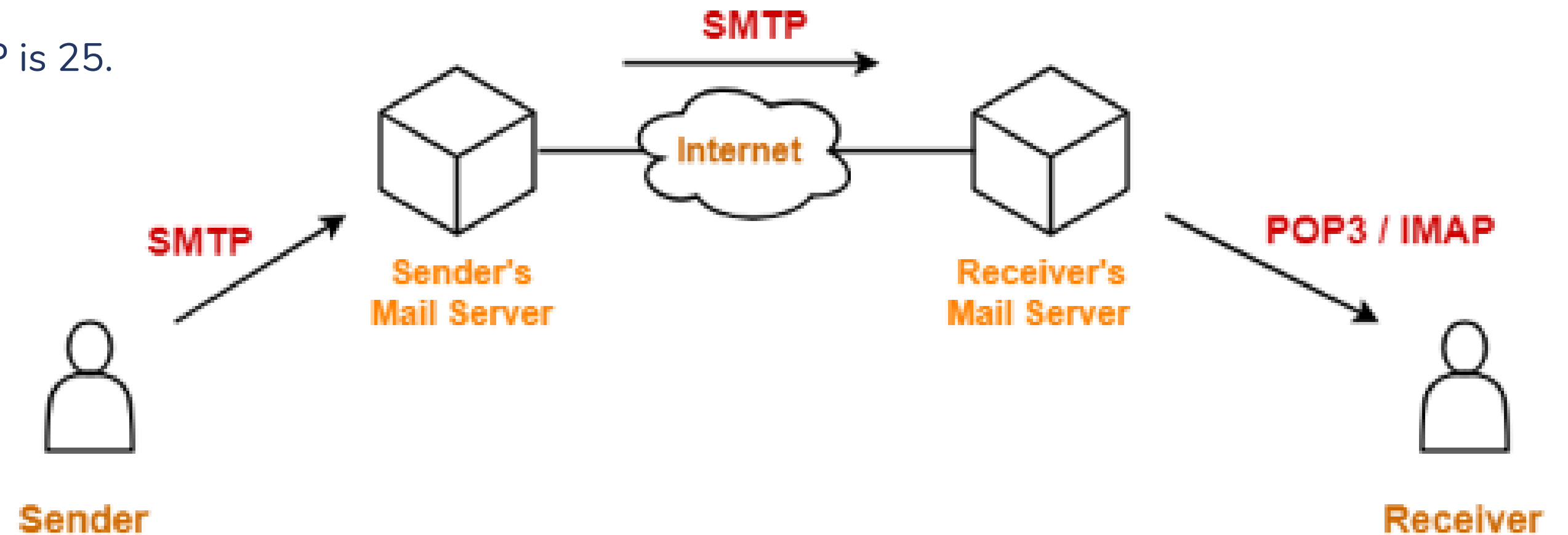
# What is SMTP?

It is an internet standard communication protocol for electronical mail transmission.

The mail servers use SMTP to send and receive mail messages.

It was published by Jon Postel in November 1981.

The default port used in SMTP is 25.



# SMTP Commands

Here are some of the principal SMTP commands:

## DATA

Defines information as the data text of the mail body.

## HELO

Identifies the domain name of the sending host to SMTP.

## QUEUE

Gets information about mail that is queued at SMTP for delivery.

## QUIT

Stops SMTP processing.

## MAIL FROM

Specifies the mail sender.

## RCPT TO

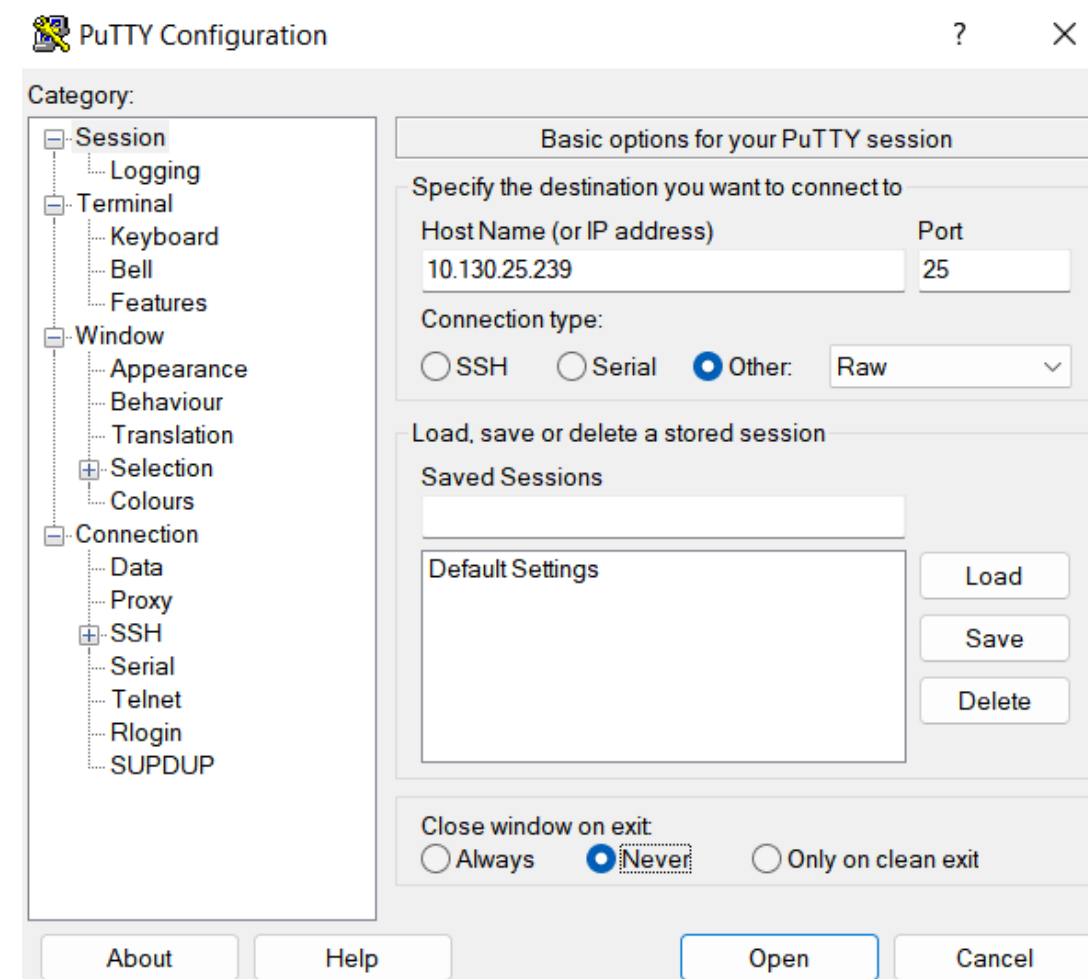
Specifies the mail recipients.

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# Exercise 1.1

## Send a mail

1. With putty, I connected myself to the SMTP server 10.130.25.239
  - I used some specific settings that you can see on the image below



2. Then with the command prompt, I made different requests (underlined in red) that I explained in the previous slide.

The image shows a PuTTY terminal window titled 'PuTTY (inactive)'. It displays an SMTP session. The commands and responses are as follows:  
220 profbox.domain.local ESMTP Postfix  
HELO raphael.cardoso@students.hevs.ch  
250 profbox.domain.local  
MAIL FROM: <rafael.cardoso@students.hevs.ch>  
250 2.1.0 Ok  
RCPT TO:<student@domain.local>  
250 2.1.5 Ok  
DATA  
354 End data with <CR><LF>.<CR><LF>  
Hello who are you?  
  
This is a test  
  
Goodbye :(  
  
.  
250 2.0.0 Ok: queued as 85155CD43  
QUIT  
221 2.0.0 Bye  
A green cursor is visible on the line following '221 2.0.0 Bye'. A blue arrow points from the 'queued as 85155CD43' text in the terminal to the text 'We can see the server response of a queued email' below the terminal.

We can see the server response of a queued email

# Exercise 1.2

## Send a email outside the server

1. We need to convert the user and password in base64. To do that we go on [www.base64encode.org](http://www.base64encode.org)

**Encode to Base64 format**  
Simply enter your data then push the encode button.

---

student

❗ To encode binaries (like images, documents, etc.) use the file upload form

UTF-8  Destination character set.

LF (Unix)  Destination newline separator.

☐ Encode each line separately (useful for when you have multiple entries).

☐ Split lines into 76 character wide chunks (useful for MIME).

☐ Perform URL-safe encoding (uses Base64URL format).

☒ Live mode OFF Encodes in real-time as you type or paste (supports

**> ENCODE <** Encodes your data into the area below.

IHN0dWRlbnQ=

**Encode to Base64 format**  
Simply enter your data then push the encode button.

---

hessovs!

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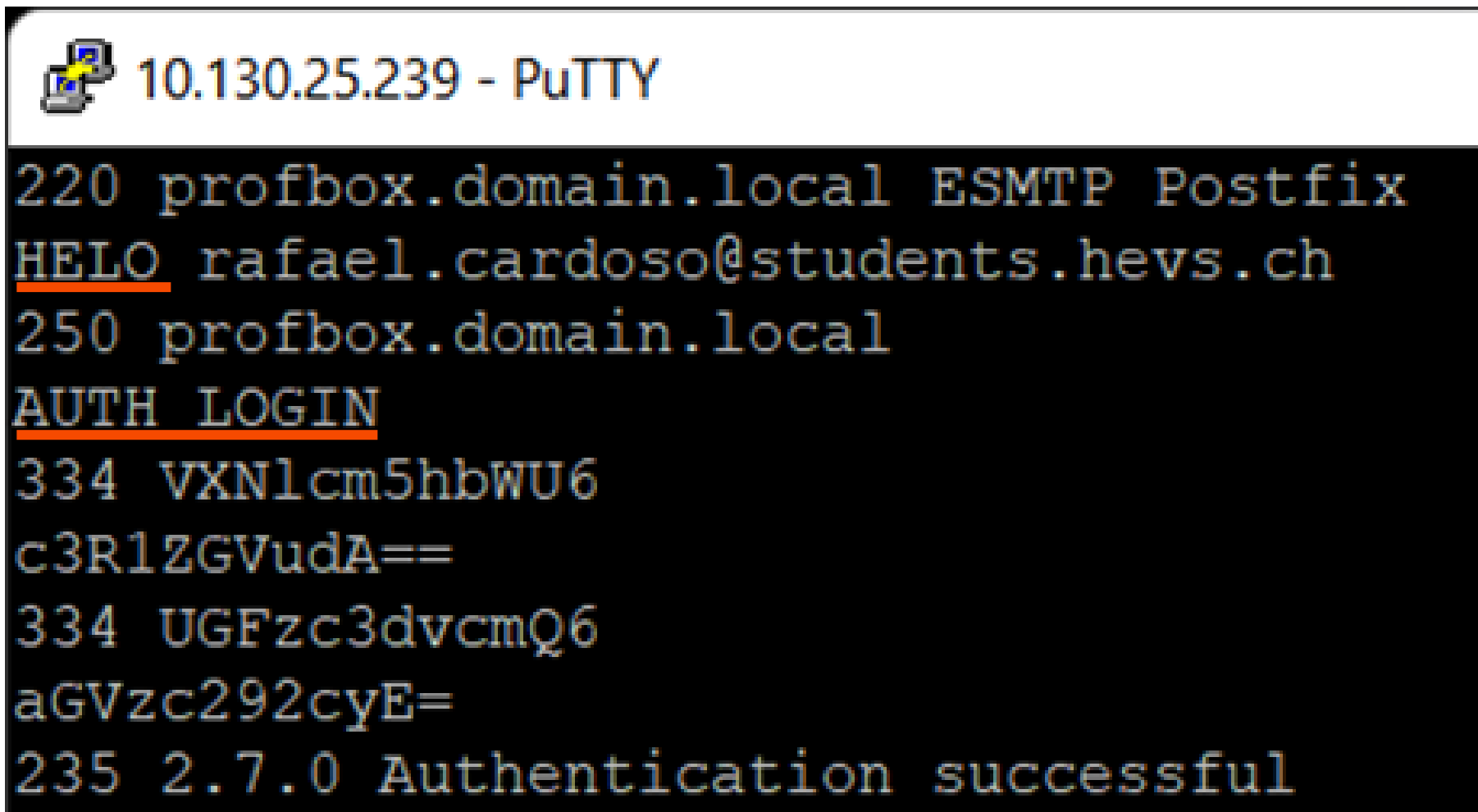
☒ Live mode OFF Encodes in real-time as you type or paste (suppor

**> ENCODE <** Encodes your data into the area below.

aGVzc292cyE=

# Exercise 1.2

2. I authenticated myself on the command prompt using the different commands.



```
10.130.25.239 - PuTTY
220 profbox.domain.local ESMTP Postfix
HELO raphael.cardoso@students.hevs.ch
250 profbox.domain.local
AUTH LOGIN
334 VXN1cm5hbWU6
c3R1ZGVudA==
334 UGFzc3dvcmQ6
aGVzc292cyE=
235 2.7.0 Authentication successful
```



# Exercise 1.2

3. Then I wrote the email sender, and the email receivers.

```
MAIL FROM:<rafael.cardoso@students.hevs.ch>  
250 2.1.0 Ok  
RCPT TO:<rafa84porto@gmail.com>  
250 2.1.5 Ok  
RCPT TO:<david.backoffice@gmail.com>
```

4. And finally, I wrote the email and finished it with a dot.


```
DATA  
354 End data with <CR><LF>.<CR><LF>  
Message-ID:<frlarodldecfafadrffocoacacccso@domain.local>  
From: Rafael Cardoso<rafael.cardoso@students.hevs.ch>  
To: rafa cardoso<rafa84porto@gmail.com>, David Russo <david.backoffice@gmail.com  
>  
Subject: 63-13 Async  
Hellom  
This is a test  
Goodbye :(  
.  
250 2.0.0 Ok: queued as 768C8CD60
```

# Exercise 1.2

5. When I checked on gmail, I could see that I had received the email.

63-13 Async

Boîte de réception x



**Rafael Cardoso** <rafael.cardoso@students.hevs.ch>  
À David, moi ▼


19:11 (il y a 7 minutes) ☆ ↶ ⋮

Traitez ce message avec prudence L'expéditeur n'a pas authentifié ce message. Gmail ne peut donc pas confirmer qu'il provient bien de lui.

Signaler comme spam

Le message semble sûr



 anglais ▼ > français ▼ [Traduire le message](#)

Désactiver pour : anglais x

Hellom  
This is a test  
Goodbye :(

↶ Répondre

↶ Répondre à tous

↷ Transférer



# Bibliography of pictures

- Slide 1 - <https://www.ionos.es/digitalguide/fileadmin/DigitalGuide/Teaser/smtp.jpg>
- Slide 2 - <https://static.javatpoint.com/fullformpages/images/smtp.png>

# Bibliography of informations

- <https://www.base64encode.org>
- <https://www.ibm.com/docs/en/zos/2.3.0?topic=set-smtp-commands>
- [https://en.wikipedia.org/wiki/Simple\\_Mail\\_Transfer\\_Protocol](https://en.wikipedia.org/wiki/Simple_Mail_Transfer_Protocol)

