SMTP- Mailing server Lab

1. Introduction

In this lab, you install and configure your own mail server. You will study the mail server functionality.

2. Server host configuration

First of all, you update some host parameters. Initially, you need to fix your hostanme and domain name. Enter the /etc/hosts to update the local name translation :

Example :

```
192.168.0.2    mail.ufaz.lab    mail        (#in this example mail.ufaz.az is the hostname)
```

On your DNS server, Update your DNS information found in « /etc.bind/db.lab »to add this hostname :

```
                    NS      ns.ufaz.lab.
                    MX      10      mail.ufaz.lab.

Mail        A       192.168.0.2
```

- **Restart your DNS service**

Also, change the default hostname in « /etc/hostname », you add « mail.ufaz.lab »

Now check the hostname and domain by typing the following command and in order to be sure with the changes you had made.

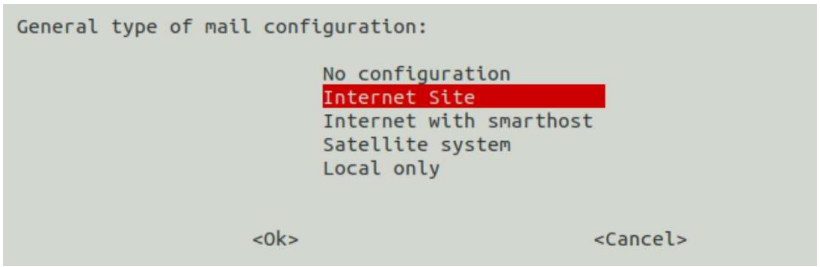
```
hostname
hostname -f
```

3. Postfix Installation

on the server host, first update the repository of Ubuntu and install and configure postfix as a SMTP server.

```
apt-get install postfix mailutils
```

For the Postfix configuration, you will be popped up with a dialog box, where you must select the "**Internet Site**" as a general type of mail configuration as shown in the below image.



Enter the domain name as (**mail.ufaz.lab**), which we have saved as a machine mail name within the host file

Configuring Postfix :

Postfix was already using the "Maildir" format. It is thus set with the home mailbox = Maildir/ parameter in « /etc/postfix/main.cf ». Open **main.cf** file and make the following changes in it.

```
myhostname = mail.ufaz.lab
mydomain = ufaz.lab
mydestibation = mail.ufaz.lab
mynetwork = 127.0.0.0/8  192.168.0.0/24      #update according to your network IP address


home_mailbox = Maildir/
```

- To check errors use : ***postconf –n***
- *Restart the service with :* ***systemctl restart postfix***
- *Check if it works* ***: systemctl status postfix***
- *Be sure that is the wright process :* ***netstat –tlpn***

To test your server, send a mail to the local user

```
echo ''Hello world !'' | mail -s ''test'' your_local_user
```

to check if the server has sent your mail, use the mail queue, enter this command : ***mailq***

Now, if the server has sent correctly your mail, the local user must receive it. Enter to the local user session, then access to the « **Maildir/** » directory in « **new/** » directory you can read your new mail

4. Installation and configuration of Devcot

Until now, you can send and receive mail only on this server machine. It very difficult the receive your own mail from an other device. Dovecot is like an agent that allow to deliver mail into local mailbox of each client thank to POP and IMAP protocols. The IMAP protocol is based on a synchronisation mechanism in order to ensure one copy of each received message est saved on the server.

Install dovecot :

```
apt-get install   dovecot-imapd    dovecot-core
```

Divecot configurationsetting

All Dovecot configuration files are present in the « /etc/dovecot/ » directory. In this directory there are several files. Each file concerns a specific set of parameters included by the main file, once the service is started.

- In /etc/devcot/devcot.conf, uncomment : ***listen = *, ::***

- In the /etc/dovecot/conf.d/10-mail.conf file :

mail_location = maildir:~/Maildir (#uncomment this line and comment the mbox line)

- In the /etc/dovecot/conf.d/10-auth.conf : update
  disable_plaintext_auth = no
- Change : ***auth_mechanisms = plain login***
- In the /etc/dovecot/conf.d/10-master.conf : saerch « postfix_smtp_suth » field and make the following change :

```
unix_listner auth-user-db {
#uncomment and add the following change
unix_listner /varspool/postfix/private/auth {
        mode = 0666
        user  = postfix
        group =  postfix
        }
}
```

- restart the service : ***systemctl dovecot restart***
- check if it has the wright process : ***netstat -nlpn***

Now to test, you add two new users : client1 and client2.

To send mail to the new users, you connect with « nc » or « telnet » to your postfix server. If these applications are not installed, you do it with « apt-get install » :

```
nc  localhost 25                    (#is designeted the smtp port)


EHLO  ufaz.lab

MAIL FROM : root

RCPT TP : client1

SUBJECT : test dovecot

  Hello test

.                                   (#to transmist the mail)
```

- do the same process to « client2 »
- and you access to the Maildir of clients and verify if the mail has been received

Now, we want manage our mail (send/receive/delete/save). Rainloop is a webmail that make easy to access to our mail and to manage it.

5. Rainloop installion and configuration

Run the following command in Ubuntu to install RainLoop.

```
apt-get install php7.0 libapache2-mod-php7.0 php7.0-curl  php7.0-xml curl apache2
```

in the **var/www/html** folder move the ***index.html*** to ***index.html.old***, and run the following command

```
curl -sL https://repository.rainloop.net/installer.php | sudo  php
```

with your browser set up the **admin** account : ***http://localhost/?admin*** the default credentials for admin : username : **admin** and password : **12345**

In the dashbord, select **Domains** section and hit « **add Domain** », enter your domain « mail.ufaz.lab », and use the localhost address « 127.0.0.1 or your IP host address add also

All is configuration is done, time to users client1 and cleint2 to test.

From an other host (VM), browse with the IP address of the mail server. Enter the user login name and send mail, ckeck and rely.

Fire Wireshark and analyse the exchange messages between users and the both server smtp and imap