Administration Linux

M2i Formation – TSSR 2020

MISE EN PLACE D'UNE INFRASTRUCTURE RESEAU SOUS LINUX

Messagerie – Pare-Feu - DHCP – DNS

INSTALLATION D'UN SERVEUR SMTP

Installé sur la machine srv-lx03 dans notre architecture

Configuration de SMTP

J'ai suivi la procédure qui se trouve ici sur le lien suivanthttps://www.tecmint.com/install-postfix-mail-server-with-webmail-in-debian

En mode sudo ou root on tape la commande apt-get update et un apt-get upgrade pour être à jour.

Puis *apt-get install curl net-tools bash-completion wget lsof nano.* On ouvre le fichier /etc/host.conf et on rajoute cette ligne là

order hosts,bind

multi on

L'étape suivant est de faire le setup de ton FQDN on le rajoute sur le etc/hosts

Dans notre cas mail.m2i.local et notre IP statique 192.168.200.103

hostnamectl set-hostname **mail.m2i.local**

echo "192.168.200.103 tecmint.com mail.tecmint.com" >> /etc/hosts

init 6

On reboot la machine let on vérifie le hostname :
hostname
hostname -s
hostname -f
hostname -A
hostname -i
cat /etc/hostname

```
debian@192.168.200.103's password:
Linux mail.m2i.local 4.9.0-4-amd64 #1 SMP Debian 4.9.51-1 (20

The programs included with the Debian GNU/Linux system are fr
the exact distribution terms for each program are described i
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the ex
permitted by applicable law.
Last login: Thu Mar 26 12:29:24 2020
debian@mail:~$ su -
Mot de passe :
root@mail:~# hostname
mail.m2i.local
root@mail:~# hostname -s
mail
root@mail:~# hostname -f
m2i.local
root@mail:~# hostname -A
m2i.local
root@mail:~# hostname -i
192.168.200.103
```

On va regarder si le domaine est joignable avec :

getent ahosts mail.m2i.local
ping m2i.local
ping mail.m2i.local

Le ping est OK

```
root@mail:~# ping m2I.local
PING m2i.local (192.168.200.103) 56(84) bytes of data.
64 bytes from m2i.local (192.168.200.103): icmp_seq=1 ttl=64 time=0.015 ms
64 bytes from m2i.local (192.168.200.103): icmp_seq=2 ttl=64 time=0.019 ms
64 bytes from m2i.local (192.168.200.103): icmp_seq=3 ttl=64 time=0.018 ms
64 bytes from m2i.local (192.168.200.103): icmp_seq=4 ttl=64 time=0.038 ms
^C
--- m2i.local ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3051ms
rtt min/avg/max/mdev = 0.015/0.022/0.038/0.010 ms
root@mail:~# ping mail.m2i.local
PING m2i.local (192.168.200.103) 56(84) bytes of data.
64 bytes from m2i.local (192.168.200.103): icmp_seq=1 ttl=64 time=0.011 ms
64 bytes from m2i.local (192.168.200.103): icmp_seq=2 ttl=64 time=0.036 ms
64 bytes from m2i.local (192.168.200.103): icmp_seq=3 ttl=64 time=0.017 ms
^C
--- m2i.local ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2030ms
rtt min/avg/max/mdev = 0.011/0.021/0.036/0.011 ms
root@mail:~# apt-get install postfix
```

Installation de postfix

On télécharge la package postfix

apt-get insall postfix

```
root@mail:~# cp /etc/postfix/main.cf{,.backup}
root@mail:~# nano /etc/postfix/main.cf
root@mail:~# systemctl restart postfix
root@mail:~# systemctl status postfix
● postfix.service - Postfix Mail Transport Agent
   Loaded: loaded (/lib/systemd/system/postfix.service; enabled; vendor preset: enabled)
   Active: active (exited) since Thu 2020-03-26 14:18:37 CET; 8s ago
  Process: 1694 ExecStart=/bin/true (code=exited, status=0/SUCCESS)
 Main PID: 1694 (code=exited, status=0/SUCCESS)

mars 26 14:18:37 mail.m2i.local systemd[1]: Starting Postfix Mail Transport Agent...
mars 26 14:18:37 mail.m2i.local systemd[1]: Started Postfix Mail Transport Agent.
root@mail:~# netstat -tlpn
Connexions Internet actives (seulement serveurs)
Proto Recv-Q Send-Q Adresse locale          Adresse distante        Etat        PID/Program name
tcp        0      0 0.0.0.0:22              0.0.0.0:*               LISTEN      437/sshd
tcp        0      0 0.0.0.0:25              0.0.0.0:*               LISTEN      1691/master
tcp6       0      0 :::22                   :::*                    LISTEN      437/sshd
tcp6       0      0 :::25                   :::*                    LISTEN      1691/master
```

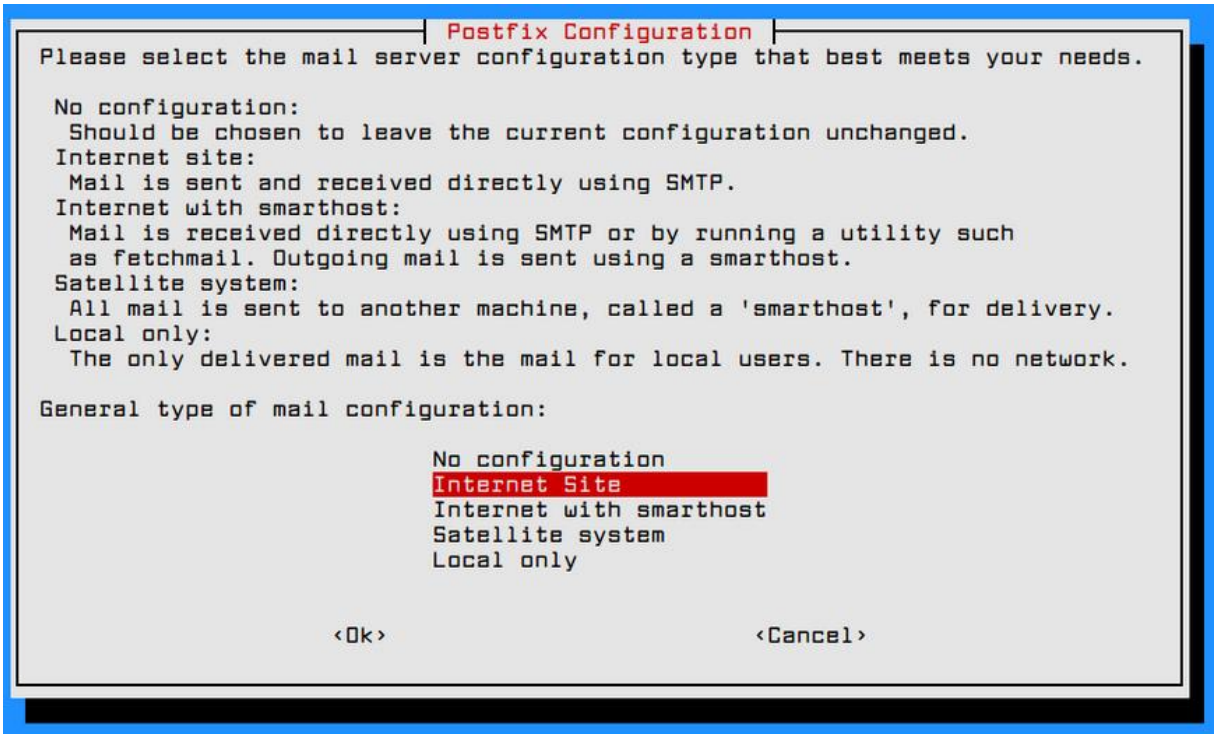
Puis on démarre le service avec la commande suivante :

Systemctl start postfix

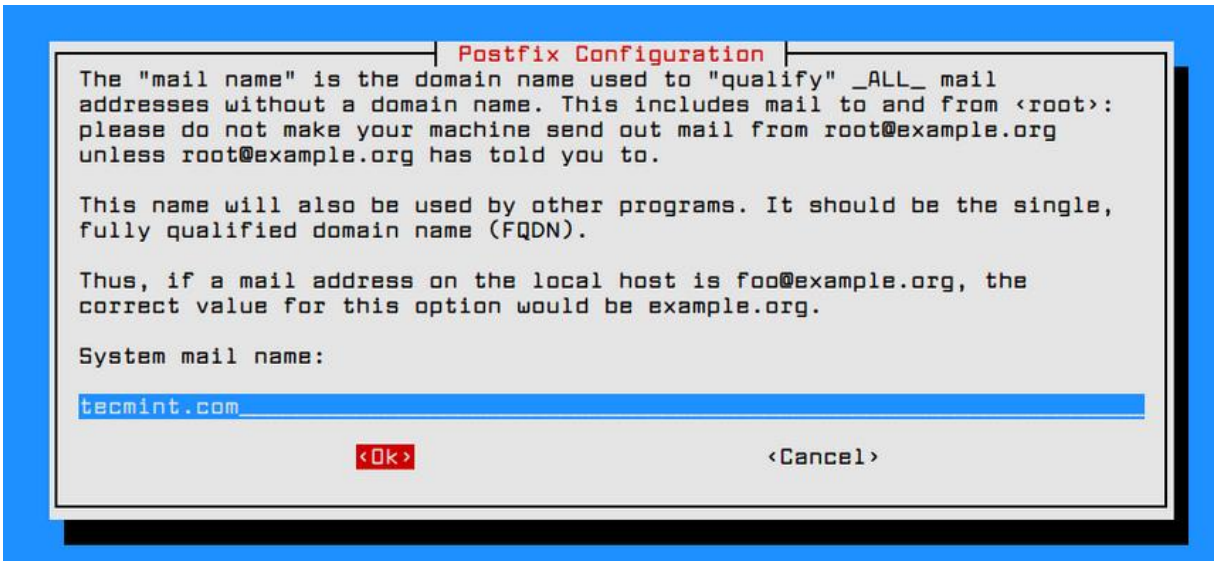
Systemctl status postfix

Le service est actif (en vert)

On rentre dans l'installation de postfix



On sélectionne Internet Site puis OK



Le domaine est déjà là par défaut donc OK

On continue la configuration de postfix mail sur notre serveur Debian.

On sauvegarde le fichier de conf de postfix

cp /etc/postfix/main.cf{,.backup}

nano /etc/postfix/main.cf

Puis on va éditer le fichier main.conf

Attention de ne rien oublier

```
# line of that file to be used as the name.  The Debian default
# is /etc/mailname.
#myorigin = /etc/mailname

smtpd_banner = $myhostname ESMTP $mail_name (Debian/GNU)
biff = no

# appending .domain is the MUA's job.
append_dot_mydomain = no

# Uncomment the next line to generate "delayed mail" warnings
#delay_warning_time = 4h

readme_directory = no

# See http://www.postfix.org/COMPATIBILITY_README.html -- default to 2 on
# fresh installs.
compatibility_level = 2

# TLS parameters
smtpd_tls_cert_file=/etc/ssl/certs/ssl-cert-snakeoil.pem
smtpd_tls_key_file=/etc/ssl/private/ssl-cert-snakeoil.key
smtpd_use_tls=yes
smtpd_tls_session_cache_database = btree:${data_directory}/smtpd_scache
smtp_tls_session_cache_database = btree:${data_directory}/smtp_scache

# See /usr/share/doc/postfix/TLS_README.gz in the postfix-doc package for
# information on enabling SSL in the smtp client.

smtpd_relay_restrictions = permit_mynetworks permit_sasl_authenticated defer_unauth_destination
myhostname = m2i.local
hostname = mail.m2i.local
alias_maps = hash:/etc/aliases
alias_database = hash:/etc/aliases
myorigin = $mydomain
mydestination = $myhostname, $hostname, localhost.$mydomain, localhost
relayhost =
mynetworks = 127.0.0.0/8 192.168.200.0/24
mailbox_size_limit = 0
recipient_delimiter = +
inet_interfaces = all
inet_protocols = all
home_mailbox = Maildir/



smtpd_sasl_type = dovecot
smtpd_sasl_path = private/auth
smtpd_sasl_auth_enable = yes
smtpd_sasl_security_options = noanonymous
smtpd_sasl_local_domain = $myhostname
smtpd_recipient_restrictions = permit_mynetworks,permit_auth_destination,permit_sasl_authenticated,reject
```

En dessous smtpd_relay. On mets notre hostname notre domaine (m2i.local)

myhostname = mail.m2i.local

mydomain = m2i.local

et on rajoute

myorigin = $mydoamin

Dans my network on va rentrer notre réseau après le 127.0.0.1 soit le 192.168.200.0/24

Pour charger la configuration on refait :

systemctl restart postfix

systemctl status postfix

netstat -tlpn

Vérification du fonctionnement du serveur de messagerie

On tape la commande *apt-get install mailutils*

```
root@mail:~# apt-get instal mailutils
E: L'opération instal n'est pas valable
root@mail:~# apt-get install mailutils
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances
Lecture des informations d'état... Fait
The following additional packages will be installed:
  guile-2.0-libs libfribidi0 libgc1c2 libgsasl7 libkyotocabinet16v5 libltdl7
  liblzo2-2 libmailutils5 libmariadbclient18 libntlm0 libpython2.7
  mailutils-common mysql-common
```

On va utiliser la ligne de commande pour faire un mail pour cela :

echo "mail body"| mail -s "test mail" root

mailq

mail

ls Maildir/

ls Maildir/new/

cat Maildir/new/[TAB]

```
root@mail:~# echo "mail body" | mail -s "test mail" root
root@mail:~# mailq
Mail queue is empty
root@mail:~# mail
Pas de courrier pour root
root@mail:~# ls Maildir/
cur  new  tmp
root@mail:~# ls Maildir/new
1585229056.V801I6137eM828264.mail.m2i.local
root@mail:~# cat Maildir/new/1585229056.V801I6137eM828264.mail.m2i.local
Return-Path: <root@mail.m2i.local>
X-Original-To: root@mail.m2i.local
```

Pour inspecter le service postfix et regarder les logs on peut utiliser

tail -f /var/log/mail.log

```
mail body
root@mail:~# tail -f /var/log/mail.log
Mar 26 12:34:51 mail postfix/master[1433]: daemon started -- version 3.1.14, con
figuration /etc/postfix
Mar 26 14:18:36 mail postfix/postfix-script[1528]: stopping the Postfix mail sys
tem
Mar 26 14:18:36 mail postfix/master[1433]: terminating on signal 15
Mar 26 14:18:37 mail postfix/postfix-script[1689]: starting the Postfix mail sys
tem
Mar 26 14:18:37 mail postfix/master[1691]: daemon started -- version 3.1.14, con
figuration /etc/postfix
Mar 26 14:24:16 mail postfix/pickup[1692]: C599FC0052: uid=0 from=<root@mail.m2i
.local>
Mar 26 14:24:16 mail postfix/cleanup[2001]: C599FC0052: message-id=<202003261324
16.C599FC0052@m2i.local>
Mar 26 14:24:16 mail postfix/qmgr[1693]: C599FC0052: from=<root@mail.m2i.local>,
 size=332, nrcpt=1 (queue active)
Mar 26 14:24:16 mail postfix/local[2003]: C599FC0052: to=<root@mail.m2i.local>,
relay=local, delay=0.03, delays=0.03/0/0/0, dsn=2.0.0, status=sent (delivered to
 maildir)
Mar 26 14:24:16 mail postfix/qmgr[1693]: C599FC0052: removed
```

Installer et configuret Dovecot IMAP pour l'accès aux courriers

On tape la commande *apt install dovecot-core dovecot-imapd*

On va éditer les fichiers (en texte rouge)

```
default/                discover.conf.d/
root@mail:~# nano /etc/dovecot/conf.d/10-auth.conf
root@mail:~# nano /etc/dovecot/conf.d/10-mail.conf
root@mail:~# nano /etc/dovecot/conf.d/10-master.conf
root@mail:~#
```

```
root@mail:~# apt install dovecot-core dovecot-imapd
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances
Lecture des informations d'état... Fait
The following additional packages will be installed:
  libexttextcat-2.0-0 libexttextcat-data libstemmer0d
Paquets suggérés :
  ntp dovecot-gssapi dovecot-sieve dovecot-pgsql dovecot-mysql dovecot-sqlite
  dovecot-ldap dovecot-pop3d dovecot-lmtpd dovecot-managesieved dovecot-solr
  dovecot-lucene ufw
Les NOUVEAUX paquets suivants seront installés :
  dovecot-core dovecot-imapd libexttextcat-2.0-0 libexttextcat-data
  libstemmer0d
0 mis à jour, 5 nouvellement installés, 0 à enlever et 1 non mis à jour.
Il est nécessaire de prendre 4 386 ko dans les archives.
Après cette opération, 11,5 Mo d'espace disque supplémentaires seront utilisés.
Souhaitez-vous continuer ? [O/n]
```

Fichier 1

Puis enlever le commentaire listen = *, :: dans le fichier /etc/dovecot/dovecot.conf

```
# --sysconfdir=/etc --localstatedir=/var

# Enable installed protocols
!include_try /usr/share/dovecot/protocols.d/*.protocol

# A comma separated list of IPs or hosts where to listen in for connections.
# "*" listens in all IPv4 interfaces, "::" listens in all IPv6 interfaces.
# If you want to specify non-default ports or anything more complex,
# edit conf.d/master.conf.
listen = *, ::

# Base directory where to store runtime data.
#base_dir = /var/run/dovecot/

# Name of this instance. In multi-instance setup doveadm and other commands
# can use -i <instance_name> to select which instance is used (an alternative
# to -c <config_path>). The instance name is also added to Dovecot processes
# in ps output.
```

Fichier 2

Le fichier suivant est /etc/dovecot/conf.d/10-auth.conf

On change la ligne suivante :

disable_plaintext_auth = no

```
## Authentication processes
##

# Disable LOGIN command and all other plaintext authentications unless
# SSL/TLS is used (LOGINDISABLED capability). Note that if the remote IP
# matches the local IP (ie. you're connecting from the same computer), the
# connection is considered secure and plaintext authentication is allowed.
# See also ssl=required setting.
disable_plaintext_auth = no

# Authentication cache size (e.g. 10M). 0 means it's disabled. Note that
```

Et aussi

auth_mechanisms = plain login

```
# Take the username from client's SSL certificate, using
# X509_NAME_get_text_by_NID() which returns the subject's DN's
# CommonName.
#auth_ssl_username_from_cert = no

# Space separated list of wanted authentication mechanisms:
#   plain login digest-md5 cram-md5 ntlm rpa apop anonymous gssapi otp skey
#   gss-spnego
# NOTE: See also disable_plaintext_auth setting.
auth_mechanisms = plain login
```

Fichier 3

Ouvre /etc/dovecot/conf.d/10-mail.conf

Et rajoutez la ligne suivant

mail_location = maildir:~/Maildir

```
# See doc/wiki/Variables.txt for full list. Some examples:
#
#   mail_location = maildir:~/Maildir
#   mail_location = mbox:~/mail:INBOX=/var/mail/%u
#   mail_location = mbox:/var/mail/%d/%ln/%n:INDEX=/var/indexes/%d/%ln/
#
# <doc/wiki/MailLocation.txt>
#
mail_location = maildir:~/Maildir

# If you need to set multiple mailbox locations or want to change defau
# namespace settings, you can do it by defining namespace sections.
#
# You can have private, shared and public namespaces. Private namespace
```

Fichier 4

Dans /etc/dovecot/conf.d/10-master.conf

On rajoute

user = postfix

group = postfix

```
 GNU nano 2.7.4     Fichier : /etc/dovecot/conf.d/10-master.conf      M

 # To give the caller full permissions to lookup all users, set the mode
 # something else than 0666 and Dovecot lets the kernel enforce the
 # permissions (e.g. 0777 allows everyone full permissions).
 unix_listener auth-userdb {
   #mode = 0666
   #user =
   #group =
 }

 # Postfix smtp-auth
 unix_listener /var/spool/postfix/private/auth {
  mode = 0666
  user = postfix
  group = postfix
 }
```

Après ces paramétrages, on redémarre le service Dovecot

systemctl restart dovecot.service

systemctl status dovecot.service

netstat -tlpn

```
root@mail:~# systemctl restart dovecot.service
root@mail:~# systemctl status dovecot.service
● dovecot.service - Dovecot IMAP/POP3 email server
   Loaded: loaded (/lib/systemd/system/dovecot.service; enabled; vendor preset:
   Active: active (running) since Thu 2020-03-26 14:43:21 CET; 11s ago
     Docs: man:dovecot(1)
           http://wiki2.dovecot.org/
  Process: 5437 ExecStop=/usr/bin/doveadm stop (code=exited, status=0/SUCCESS)
  Process: 5441 ExecStart=/usr/sbin/dovecot (code=exited, status=0/SUCCESS)
 Main PID: 5443 (dovecot)
    Tasks: 4 (limit: 19660)
   CGroup: /system.slice/dovecot.service
           ├─5443 /usr/sbin/dovecot
           ├─5444 dovecot/anvil
           ├─5445 dovecot/log
           └─5447 dovecot/config

mars 26 14:43:21 mail.m2i.local systemd[1]: Stopped Dovecot IMAP/POP3 email serv
mars 26 14:43:21 mail.m2i.local systemd[1]: Starting Dovecot IMAP/POP3 email ser
mars 26 14:43:21 mail.m2i.local systemd[1]: dovecot.service: PID file /var/run/d
mars 26 14:43:21 mail.m2i.local dovecot[5443]: master: Dovecot v2.2.27 (c0f36b0)
mars 26 14:43:21 mail.m2i.local systemd[1]: Started Dovecot IMAP/POP3 email serv
lines 1-20/20 (END)
```

```
           └─5447 dovecot/config

mars 26 14:43:21 mail.m2i.local systemd[1]: Stopped Dovecot IMAP/POP3 email serv
mars 26 14:43:21 mail.m2i.local systemd[1]: Starting Dovecot IMAP/POP3 email ser
mars 26 14:43:21 mail.m2i.local systemd[1]: dovecot.service: PID file /var/run/d
mars 26 14:43:21 mail.m2i.local dovecot[5443]: master: Dovecot v2.2.27 (c0f36b0)
mars 26 14:43:21 mail.m2i.local systemd[1]: Started Dovecot IMAP/POP3 email serv
root@mail:~# netstat -tlpn
Connexions Internet actives (seulement serveurs)
Proto Recv-Q Send-Q Adresse locale           Adresse distante         Etat
PID/Program name
tcp        0      0 0.0.0.0:143             0.0.0.0:*               LISTEN
5443/dovecot
tcp        0      0 0.0.0.0:22              0.0.0.0:*               LISTEN
437/sshd
tcp        0      0 0.0.0.0:25              0.0.0.0:*               LISTEN
1691/master
tcp6       0      0 :::143                  :::*                    LISTEN
5443/dovecot
tcp6       0      0 :::22                   :::*                    LISTEN
437/sshd
tcp6       0      0 :::25                   :::*                    LISTEN
1691/master
root@mail:~#
```

on va essayer de faire un test via netcat de connexion au smtp en créant un nouveau utilisateur

adduser mounir

nc localhost 25

ehlo localhost

mail from: root

rcpt to: matie

data

subject: test

ici tu tappe votre mail

quit

```
root@mail:~# adduser mounir
Ajout de l'utilisateur « mounir » ...
Ajout du nouveau groupe « mounir » (1001) ...
Ajout du nouvel utilisateur « mounir » (1001) avec le groupe « mounir » ...
Création du répertoire personnel « /home/mounir »...
Copie des fichiers depuis « /etc/skel »...
Entrez le nouveau mot de passe UNIX :
Retapez le nouveau mot de passe UNIX :
passwd: password updated successfully
Changing the user information for mounir
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Cette information est-elle correcte ? [O/n]
```

ls /home/mounir/Maildir/new/

```
ceci est un test
.
250 2.0.0 Ok: queued as BFE2FC02FA
quit
221 2.0.0 Bye
root@mail:~# ls /home/test_
ls: impossible d'accéder à '/home/test_': Aucun fichier ou dossier de ce type
root@mail:~# ls /home/mounir/Maildir/new/
1585232491.V801I100010M799665.mail.m2i.local
root@mail:~# cat /home/mounir/Maildir/new/1585232491.V801I100010M799665.mail.m2i
Return-Path: <root@m2i.local>
X-Original-To: mounir
Delivered-To: mounir@m2i.local
Received: from localhost (localhost [127.0.0.1])
        by mail.m2i.local (Postfix) with ESMTP id BFE2FC02FA
        for <mounir>; Thu, 26 Mar 2020 15:20:41 +0100 (CET)
Subject: test
Message-Id: <20200326142057.BFE2FC02FA@mail.m2i.local>
Date: Thu, 26 Mar 2020 15:20:41 +0100 (CET)
From: root@m2i.local

ceci est un test
root@mail:~# nano /etc/postfix/main.cf
root@mail:~#
```

Installation de webmail sur Debian

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

On va supprimer le fichier index dans la /var/www/html/

cd /var/www/html/

rm index.html

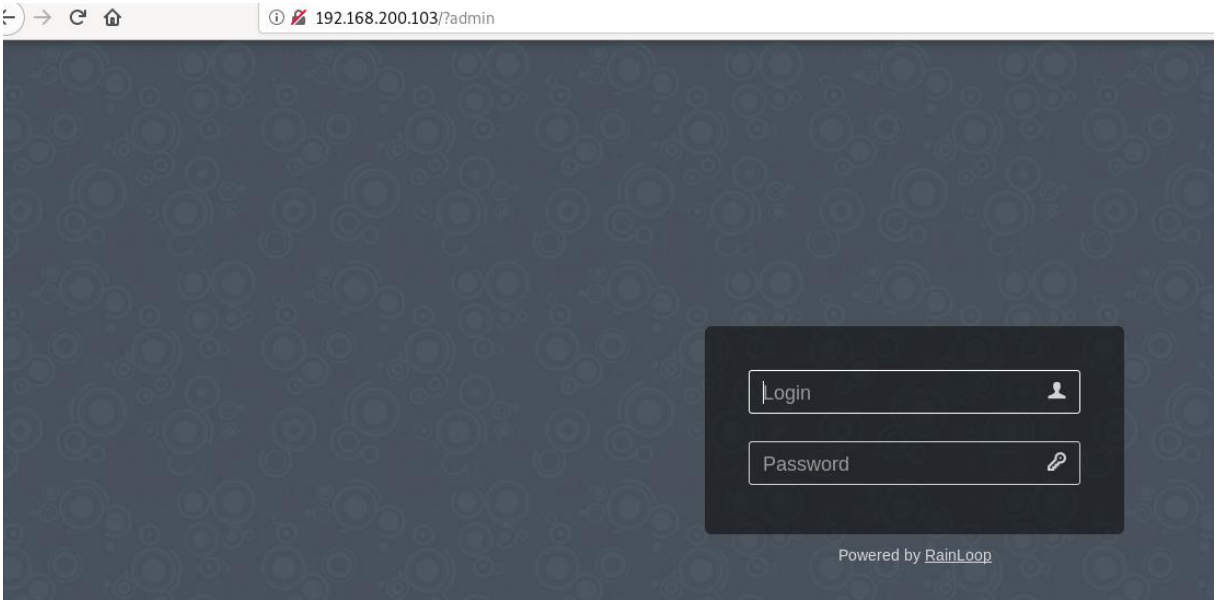
curl -sL https://repository.rainloop.net/installer.php | php

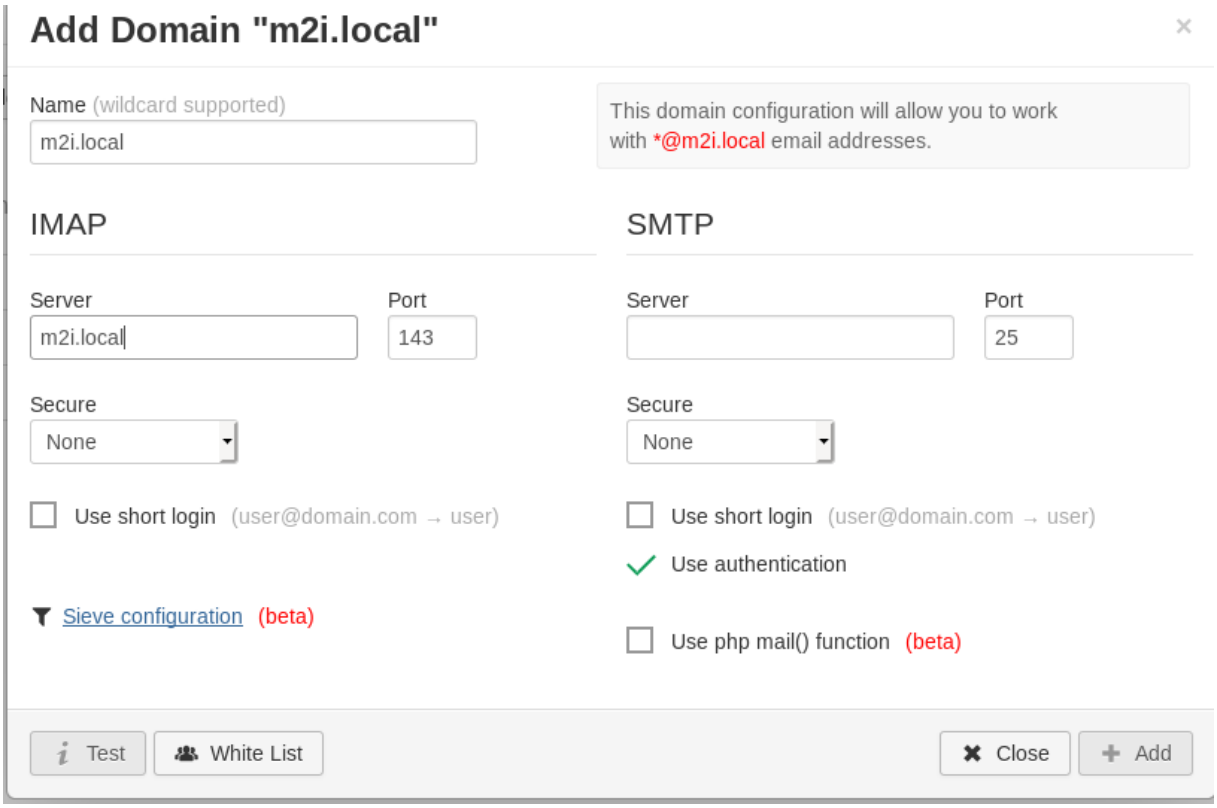
Apres l'installation de Rainloop on va se connecter sur la page web du server

http://192.168.0.102/?admin

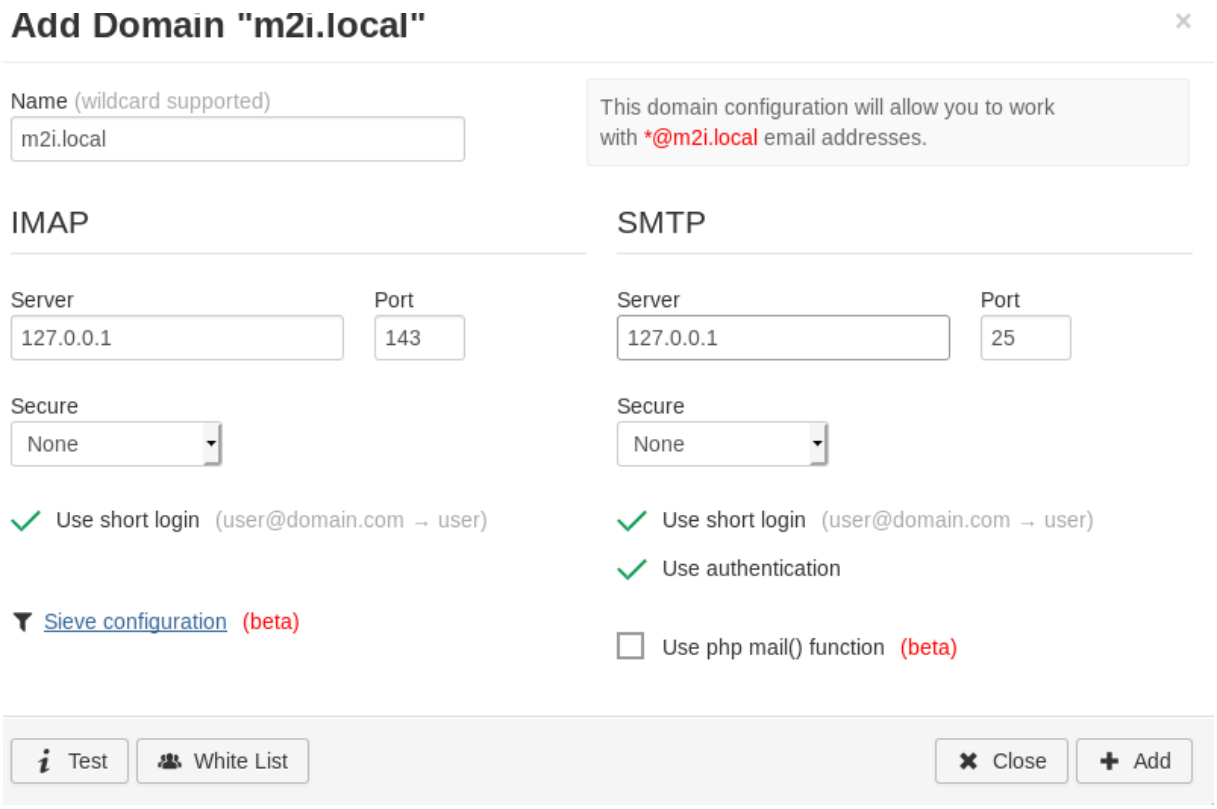
User: admin

Password: 12345



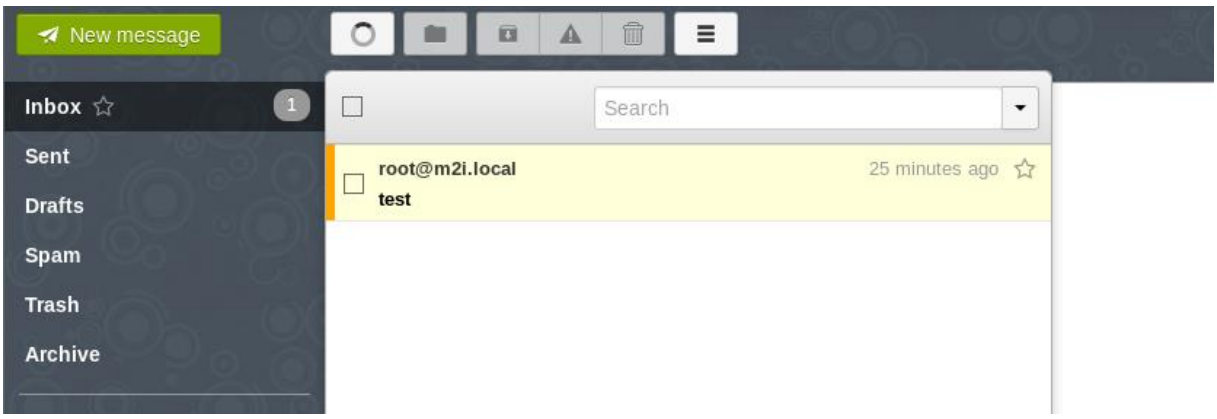


On rajoute notre domaine : m2i.local



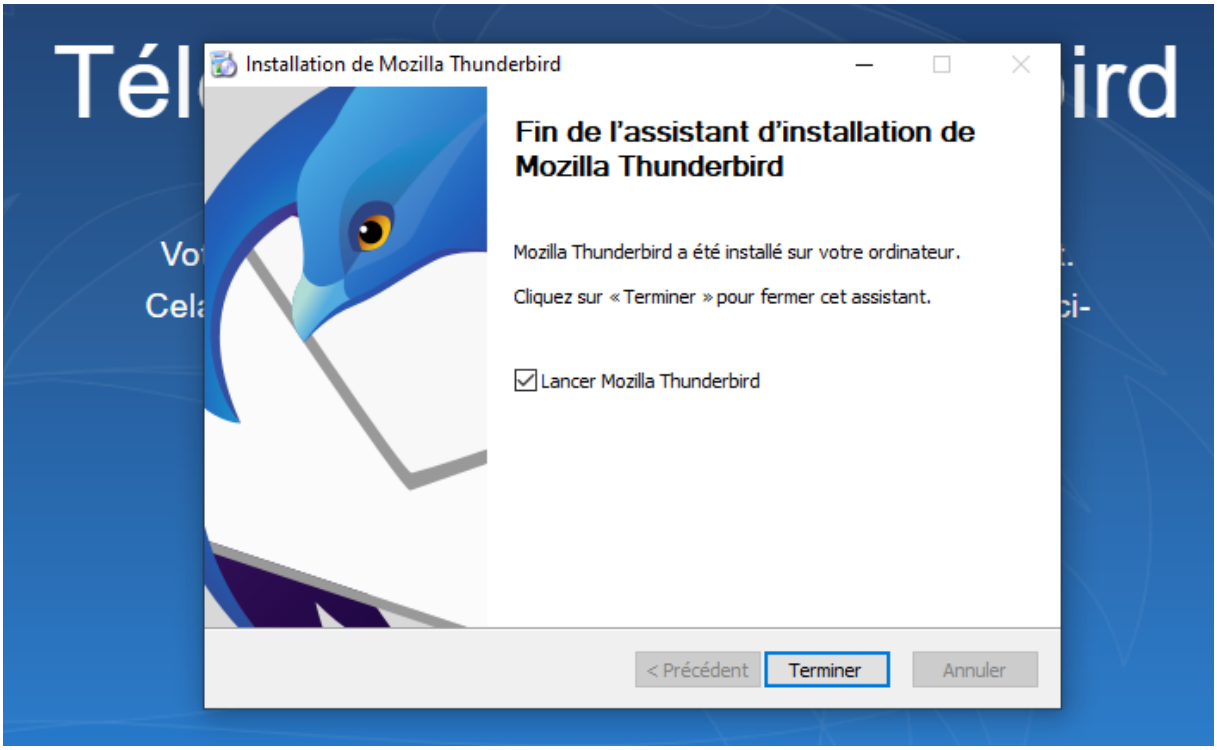
IMAP = 127.0.0.1 SMTP = 127.0.0.1

On coche use short login et use authentification. On voit le message qu'on a envoyé depuis notre terminal.



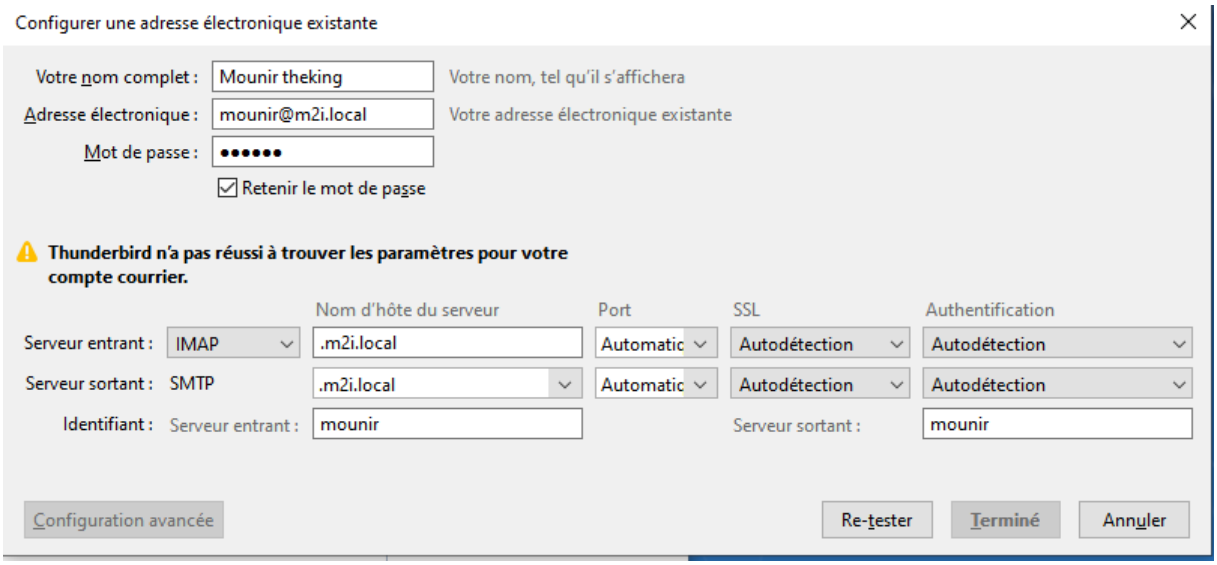
Configuration de thunderbird sur poste client

Sur un poste client windows, on télécharge depuis https://www.thunderbird.net/fr/download/

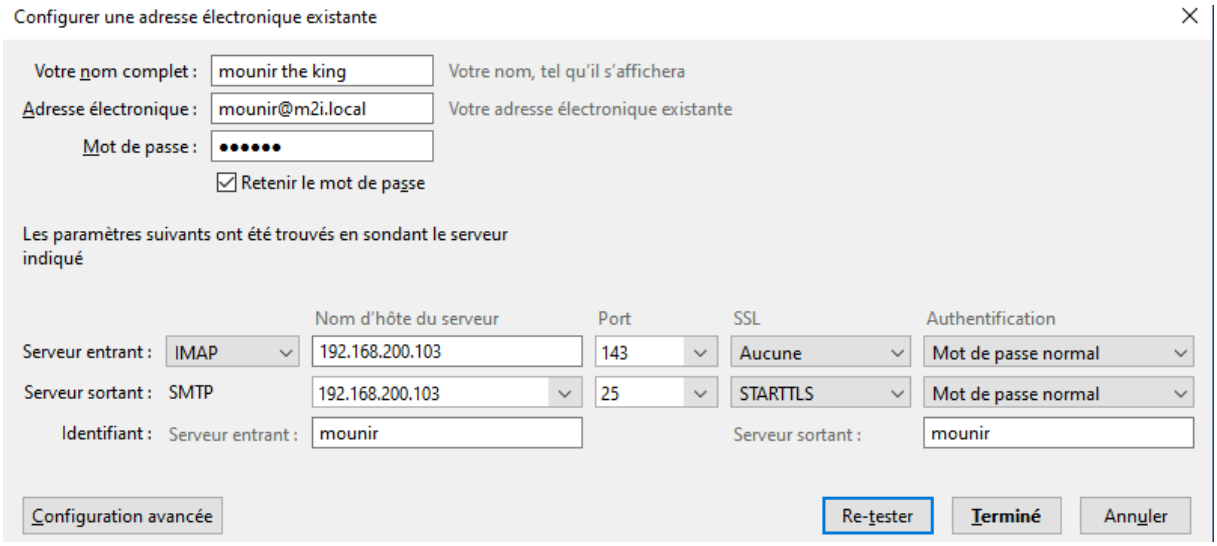
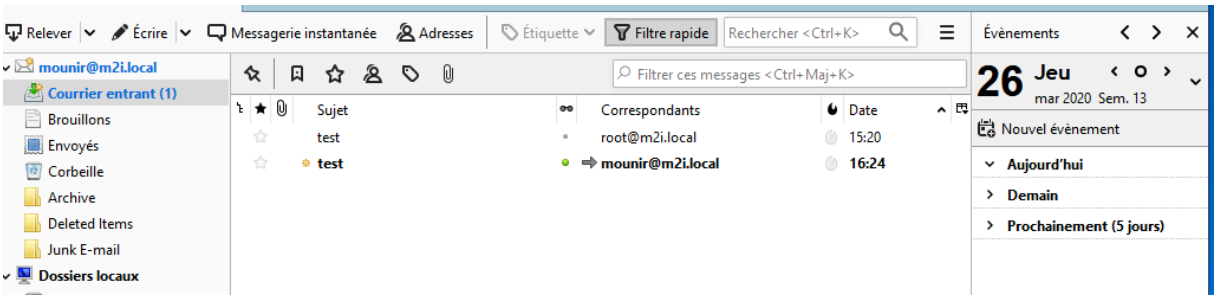


On va créer un compte

On complète nom, adresse, mot de passe



Puis on change le nom d'hôte du serveur en 192.168.200.103



On envoie un message de test