

vmmail

vmfree.org

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Inhaltsverzeichnis

License.....	3
1 Install vmmail.....	4
1.2 Run installation.....	4
2 Configure vmmail.....	11
3 Configure Roundcube.....	12
4 Connect a mail client to vmmail.....	15
5 Inside vmmail.....	17
5.2 Start and stop services.....	17
5.1 Create another certificate.....	17
5.2 Archive mails.....	17
5.3 Repair mailbox index.....	17
5.4 Place of the Mails.....	18
5.5 Get mails.....	18
5.6 Change the pickup times.....	18
5.7 Important files.....	18
6 Configuration.....	19
6.1 New user.....	19
6.2 Postfix.....	19
6.2 Dovecot.....	20
6.3 Roundcube.....	21
6.4 Apache.....	21

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1 Install vmmail

Install Ubuntu 18.04 LTS Server on your server.
Configure a network connection.
For the installation you need an internet connection.

Before you install vmmail, you need:

- a mail address at a provider.
- the POP3 server name from your provider.
- the STMP server name from your provider.

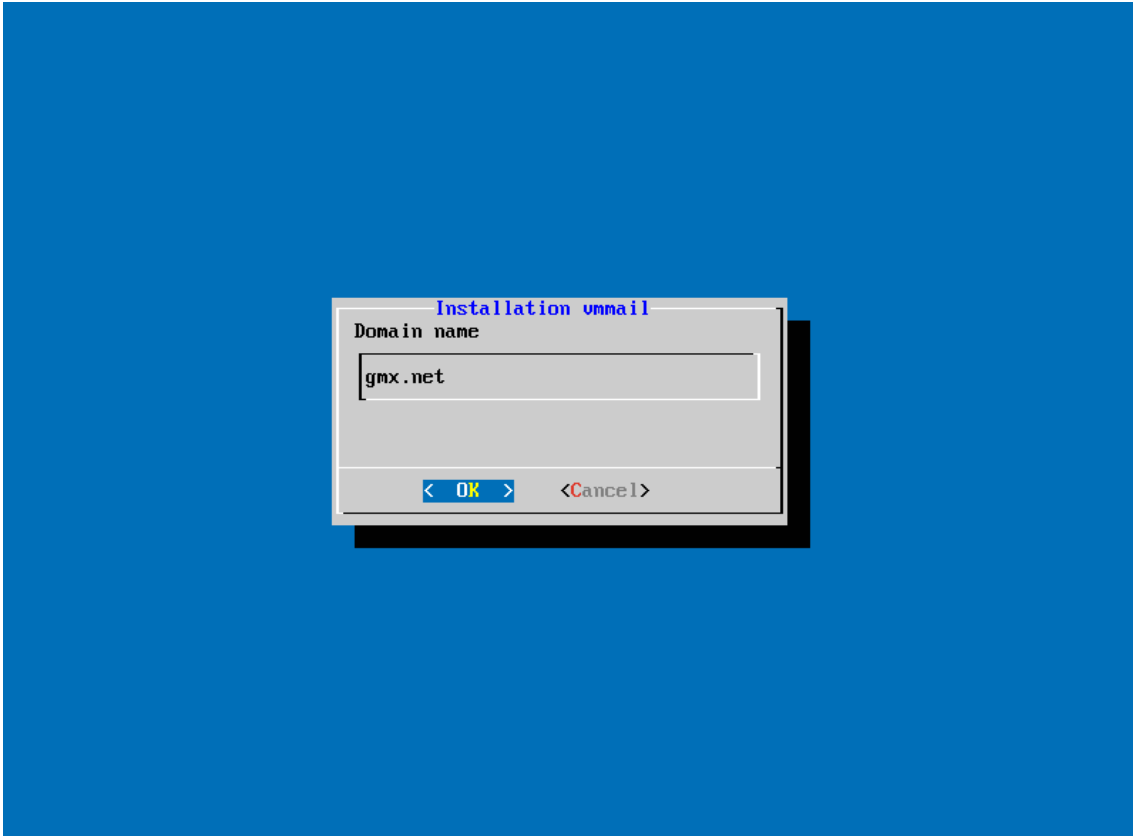
For the following installation steps I use as an example these parameters:

- mail address: vera.gemini@gmx.net
- password: secret!1234
- POP3 server: pop.gmx.net
- SMTP server: mail.gmx.net

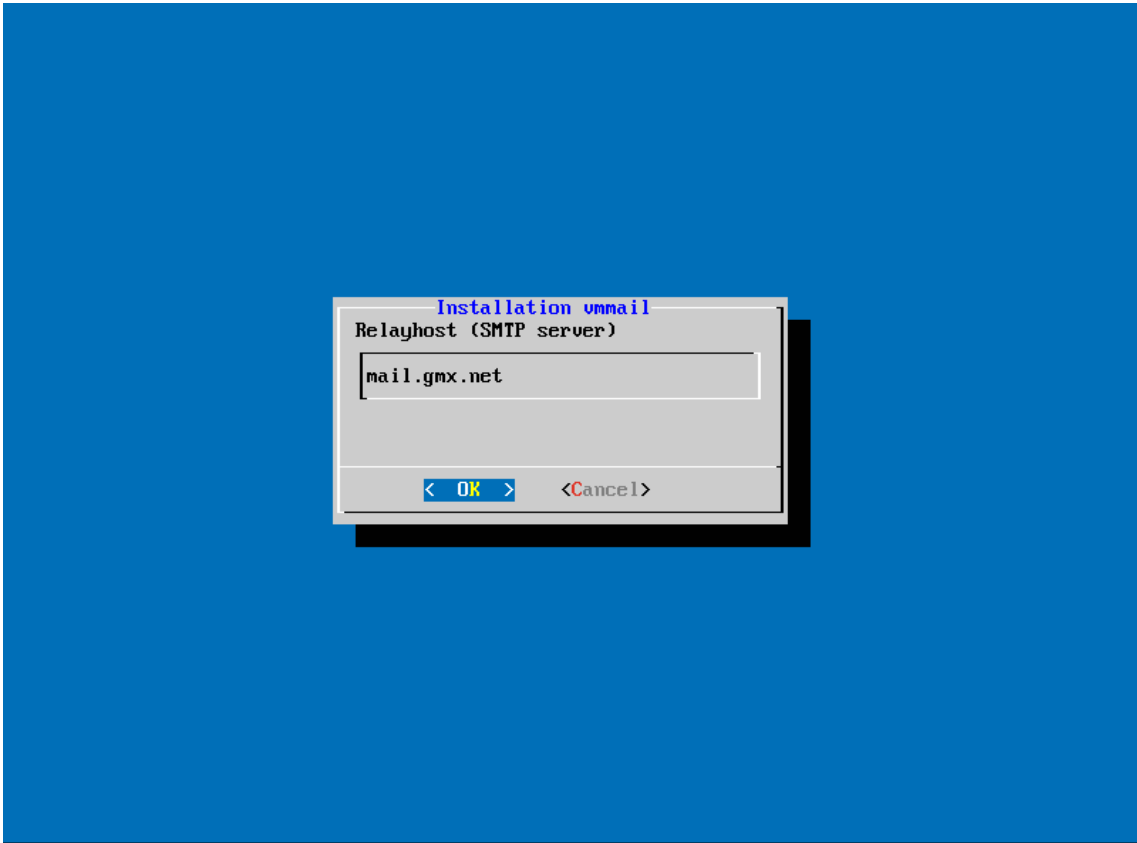
1.2 Run installation

1. Download vmmail: `wget http://www.vmfree.org/vmmail/downloads/vmmail.tar.gz`
2. Unpack the file: `tar xvfzp vmmail.tar.gz`
3. Start installation: `sudo vmmail/install.sh`

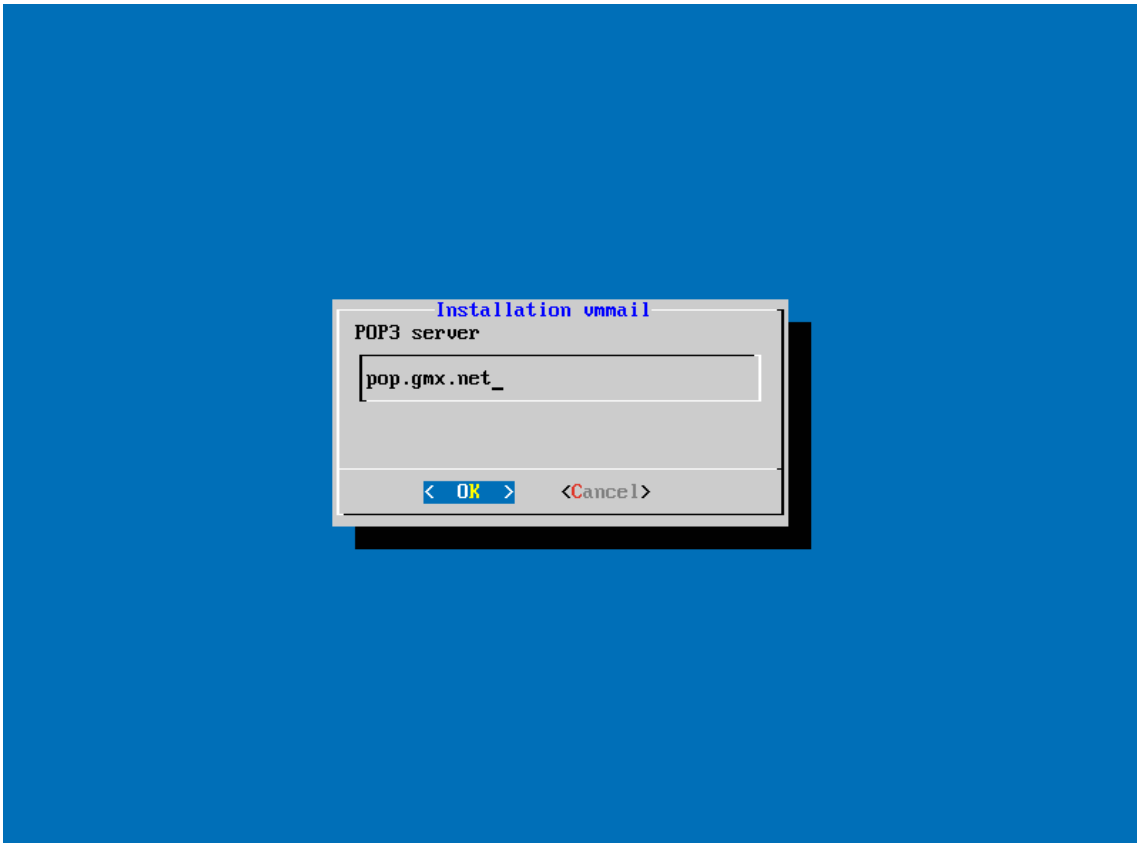
Enter the domain name:



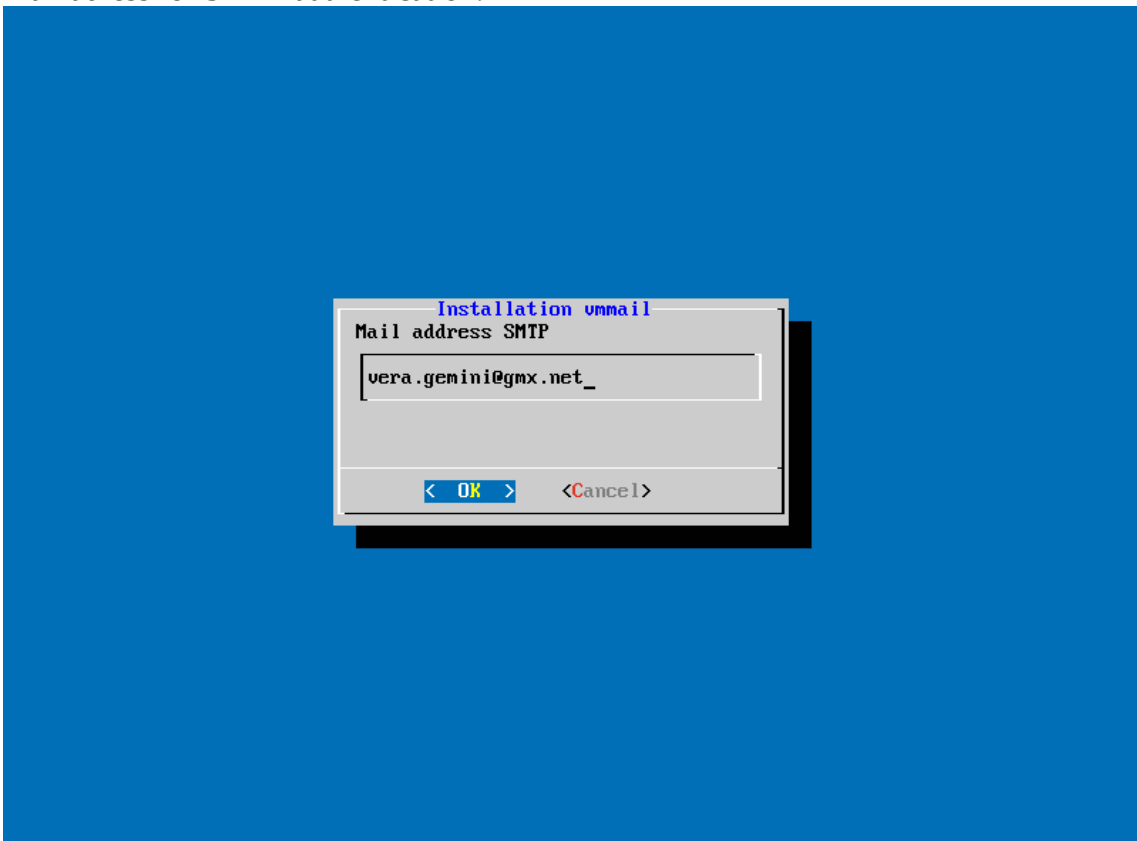
Enter SMTP server:



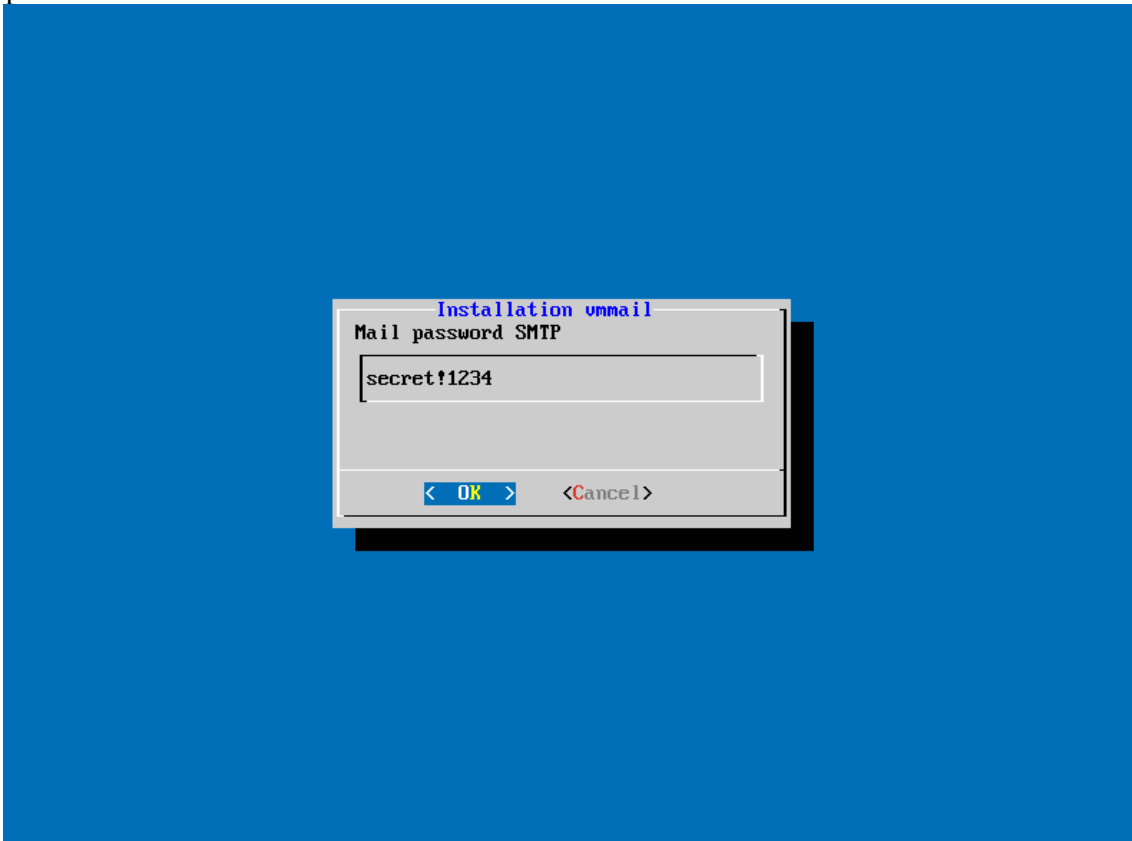
Enter POP3 server:



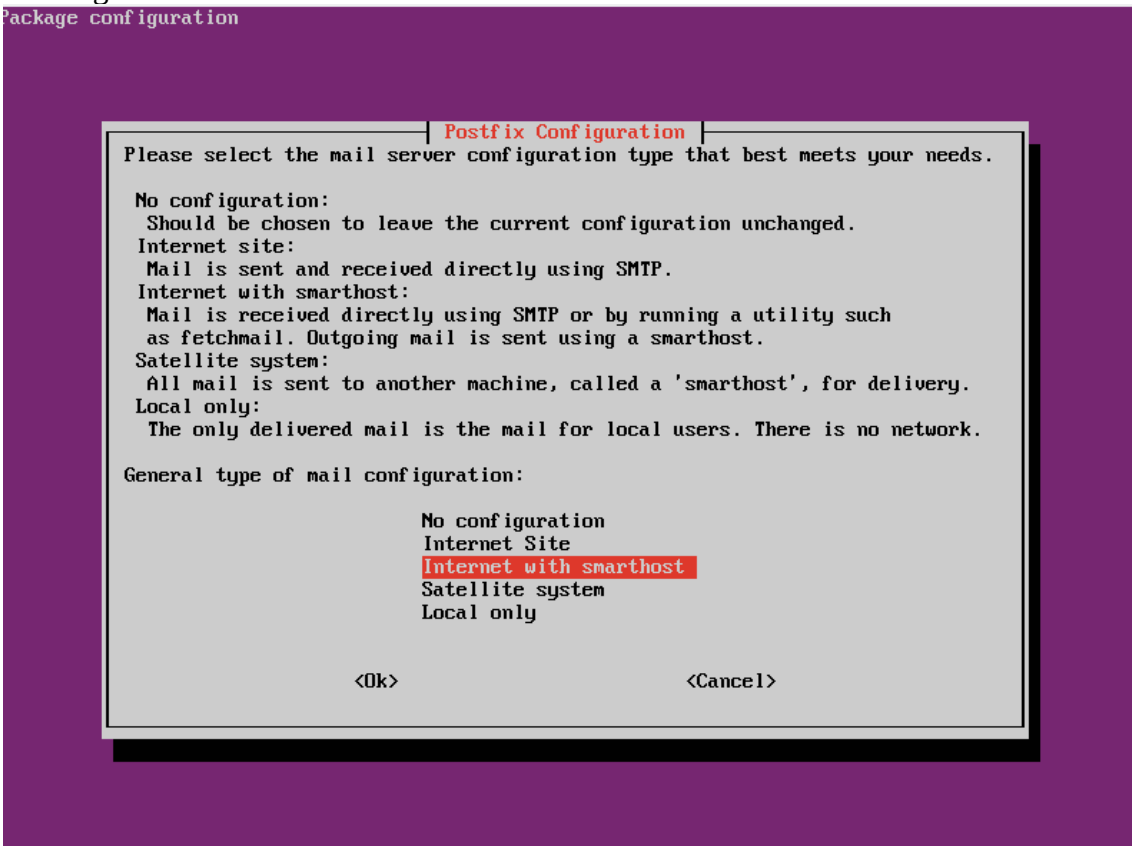
Enter mail address for SMTP authentication:



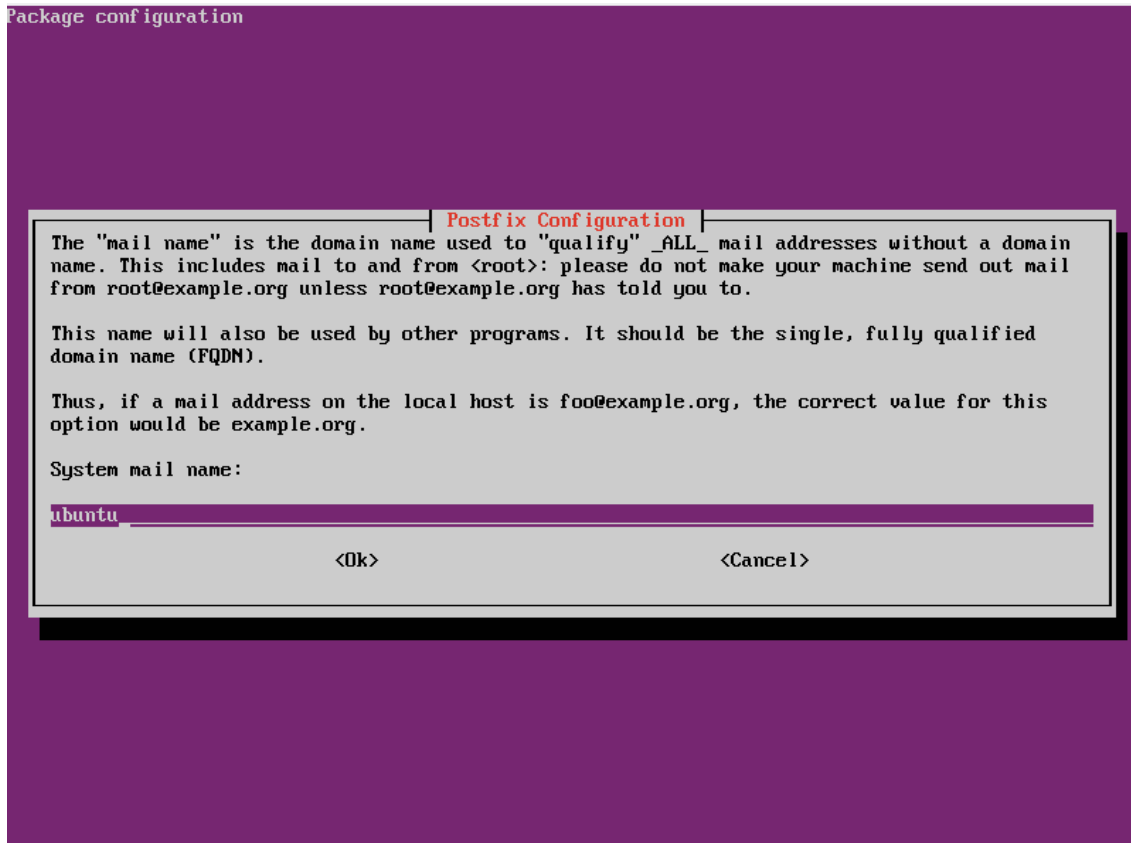
Enter password to mail address for STMP authentication:



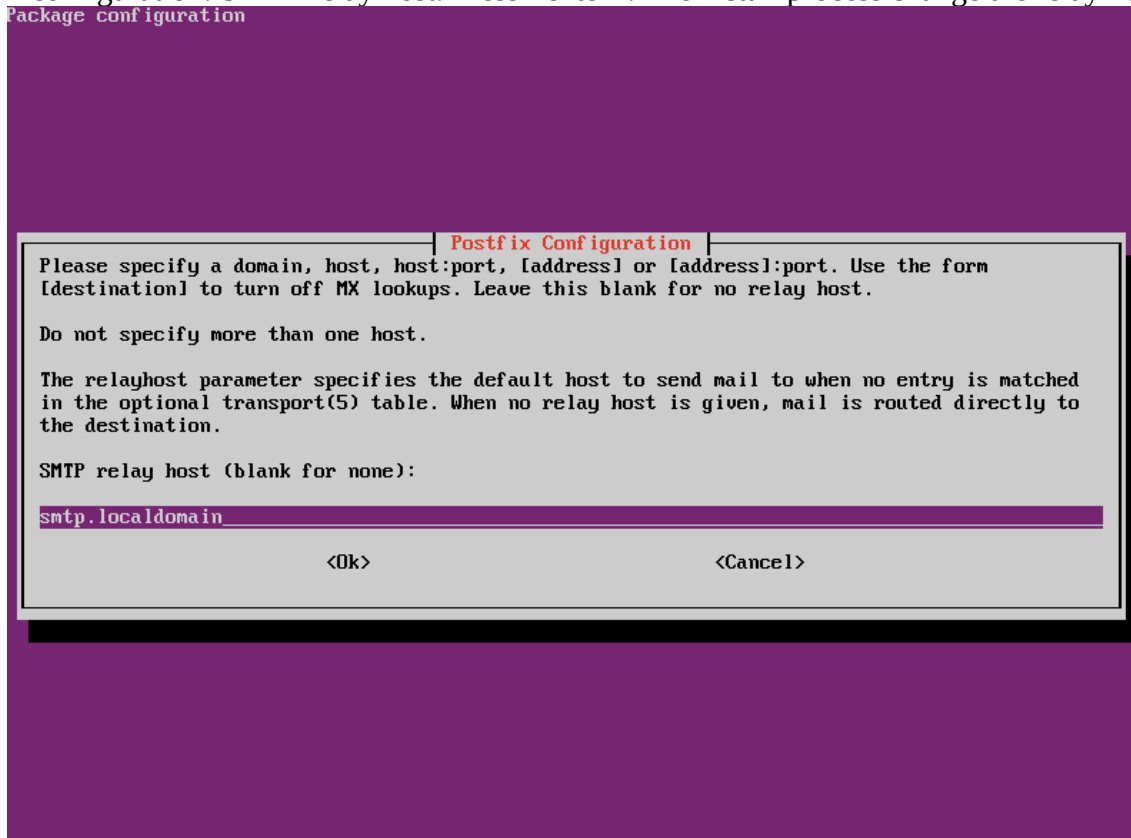
Postfix configuration: Choose "Internet with smarthost":



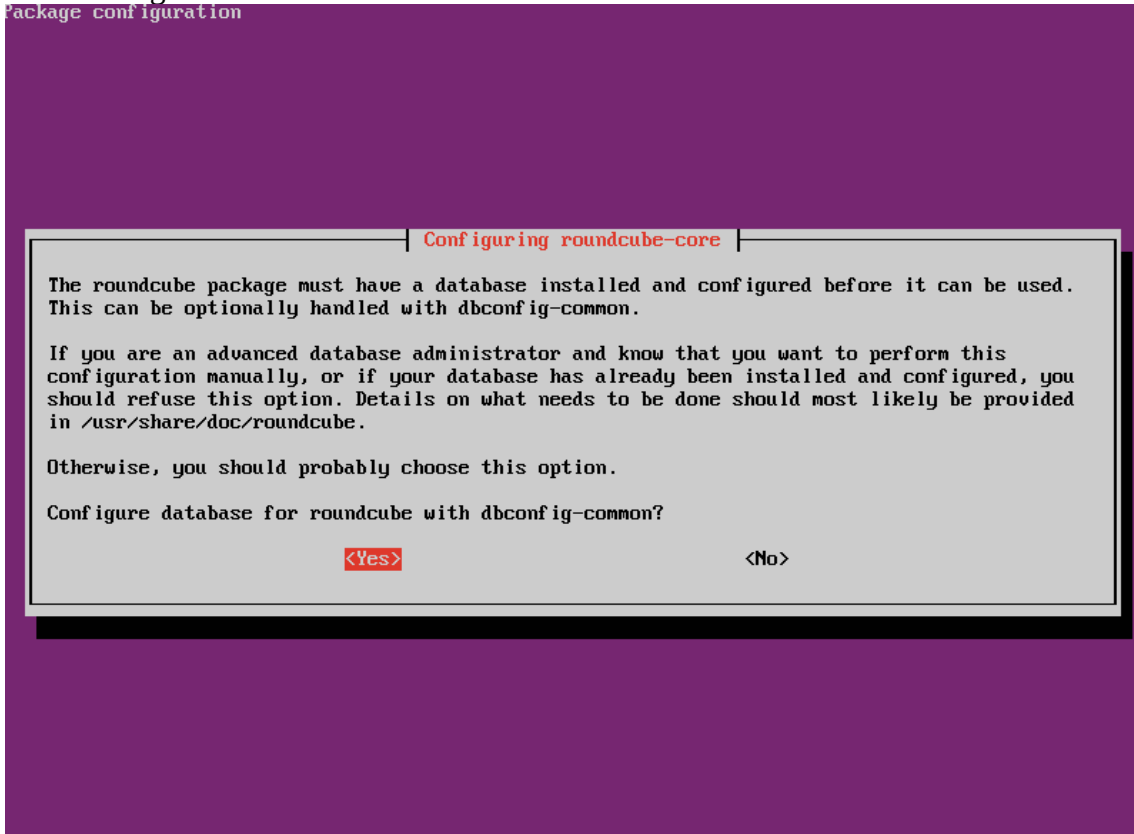
Postfix configuration: System mail name. Press <enter>. The install process change the system name.



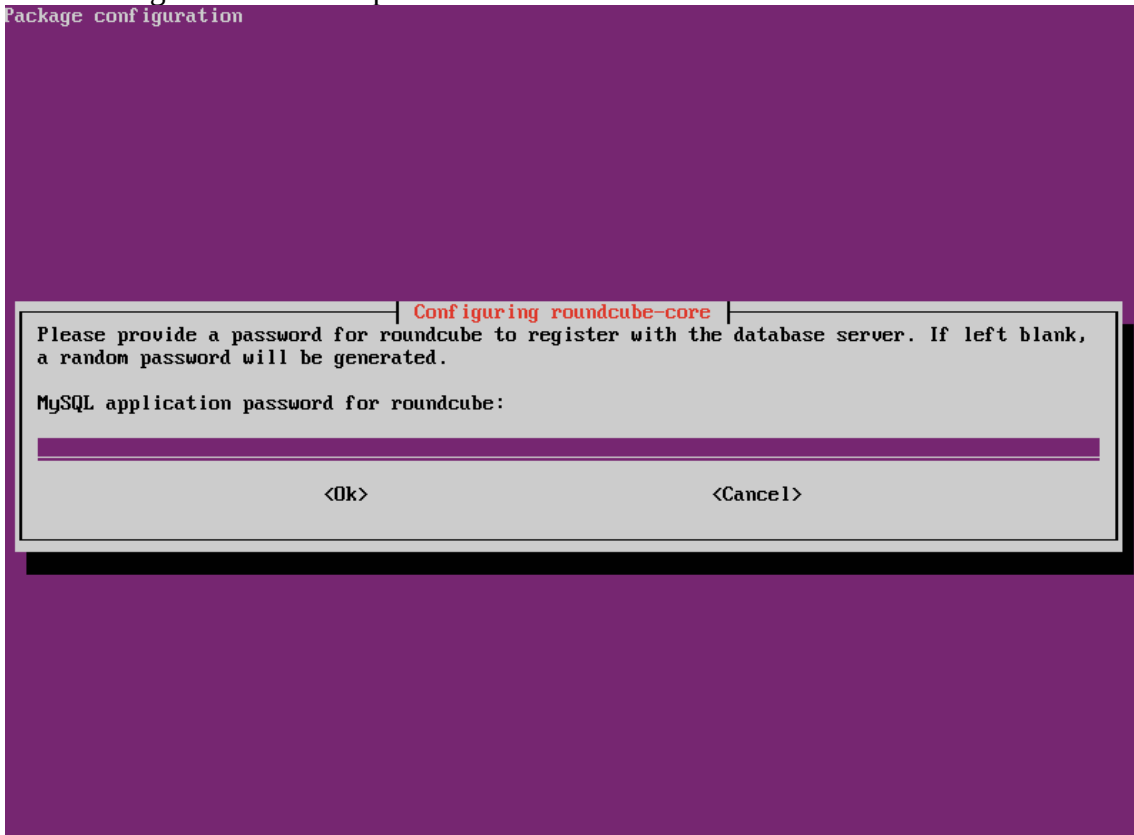
Postfix configuration: SMTP relay host. Press <enter>. The install process change the relay host.



Roundcube configuration: Choose <Yes>:

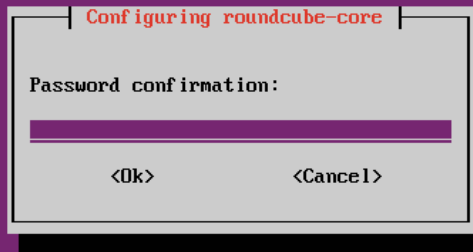


Roundcube configuration: Enter a password for the database:



Roundcube configuration: Repeat the input of the database password:

Package configuration



After these entries vmmail will be installed.

After the installation, reboot the server: `shutdown -r now`

After booting, vmmail is available.

2 Configure vmmail

To explain the configuration, I use the mail addresses vera.gemini@gmx.net.

Add new user

To add a new user, use the command `madduser` on a shell.

The parameters for the `madduser` command are:

```
-u <User name>  
-p <User password for roundcube>  
-e <Mail address without domain>  
-i <Password for local IMAP connection with a Mail client>  
-a <Password for the archive user>
```

Note:

- Do not forget the simple apostrophe for the passwords.
- Structure password: The password must have a length of 10 characters, with a capital letter, a number and a special character.

Example:

```
sudo madduser -u vera -p 'Secret.123' -e vera.gemini -o 'secret!1234' -i 'Secret.123' -a  
'Secret.123'
```

The output is:

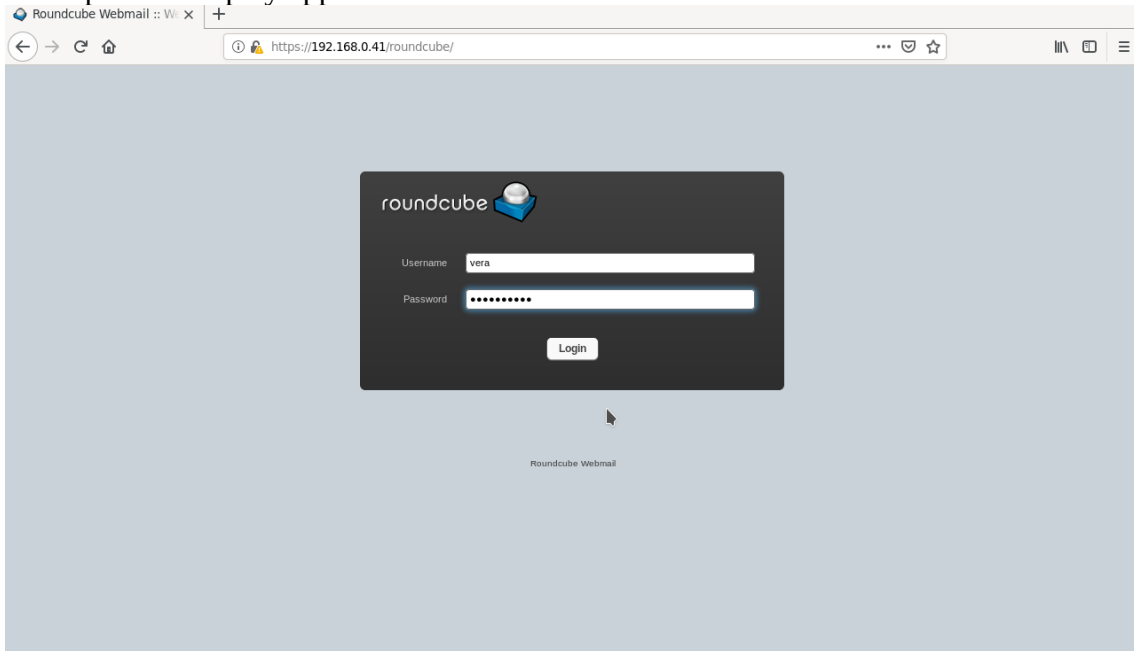
```
** vera **  
* create user  
* set password  
* create IMAP user  
* set password IMAP  
* change group  
* create archive user  
* set password archiv  
* change groud  
* add /etc/fetchmailrc  
* add /etc/postix/bcc_maps  
* add /etc/aliases  
* change /etc/passwd
```

3 Configure Roundcube

Roundcube is a free software for webmail.

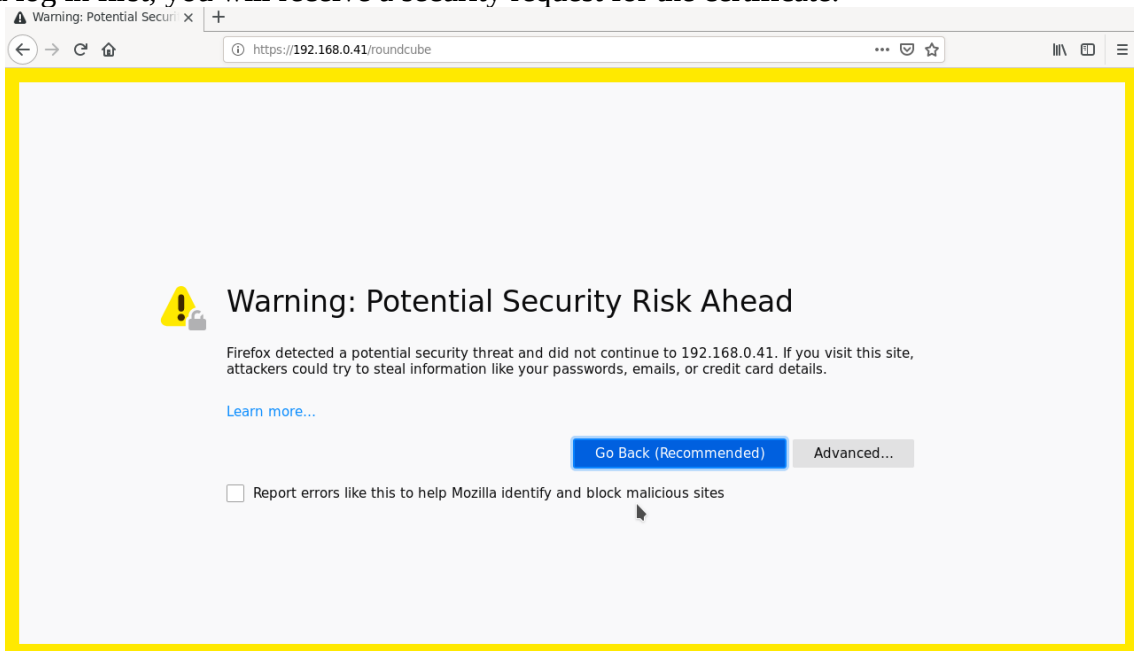
Start a browser und enter these address: `https://<IP address from your vmmail server>/roundcube`

After this input this display appears:

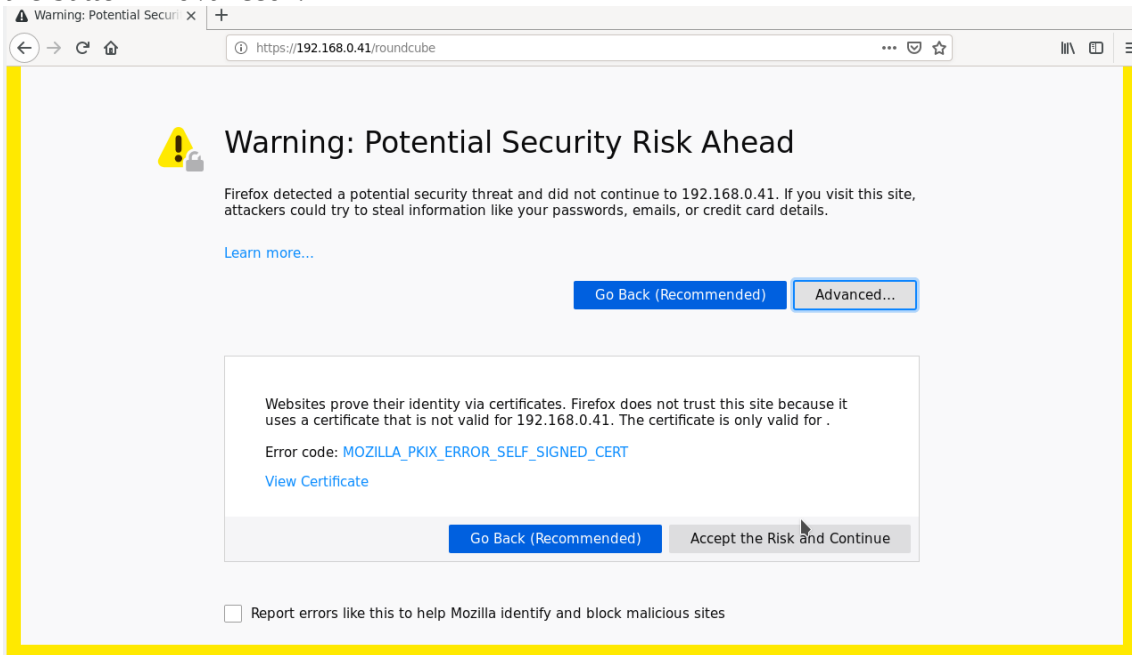


Enter the Username and Password. In our example the user name is "vera" an the password is "Secret.123".

If you log in first, you will receive a security request for the certificate:

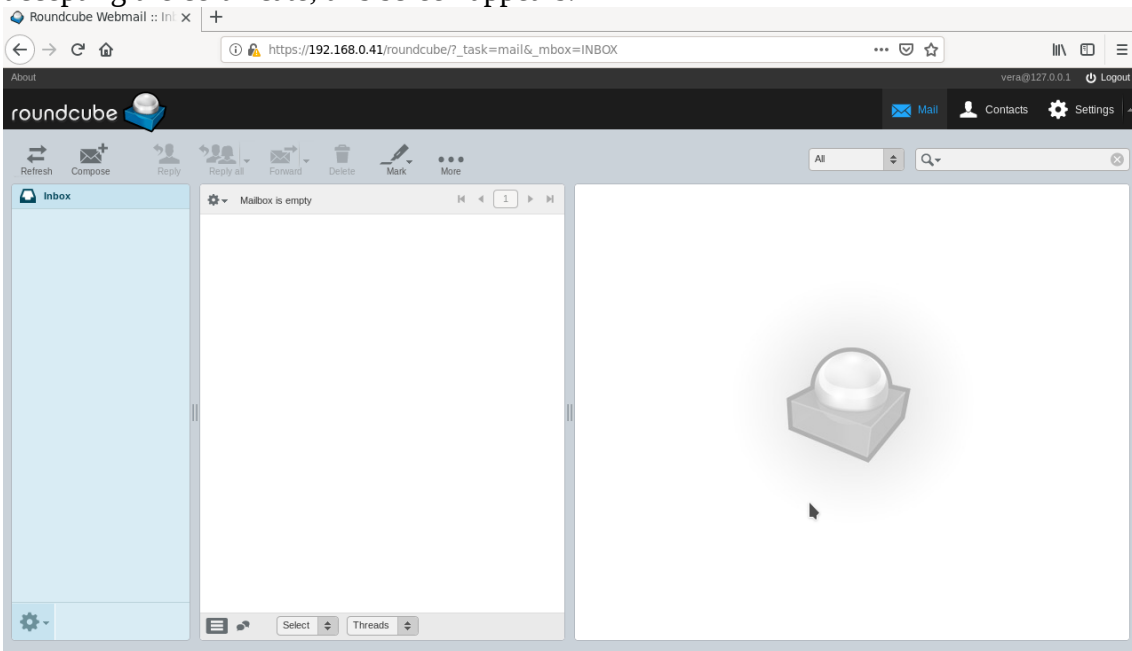


Press the button "Advanced":

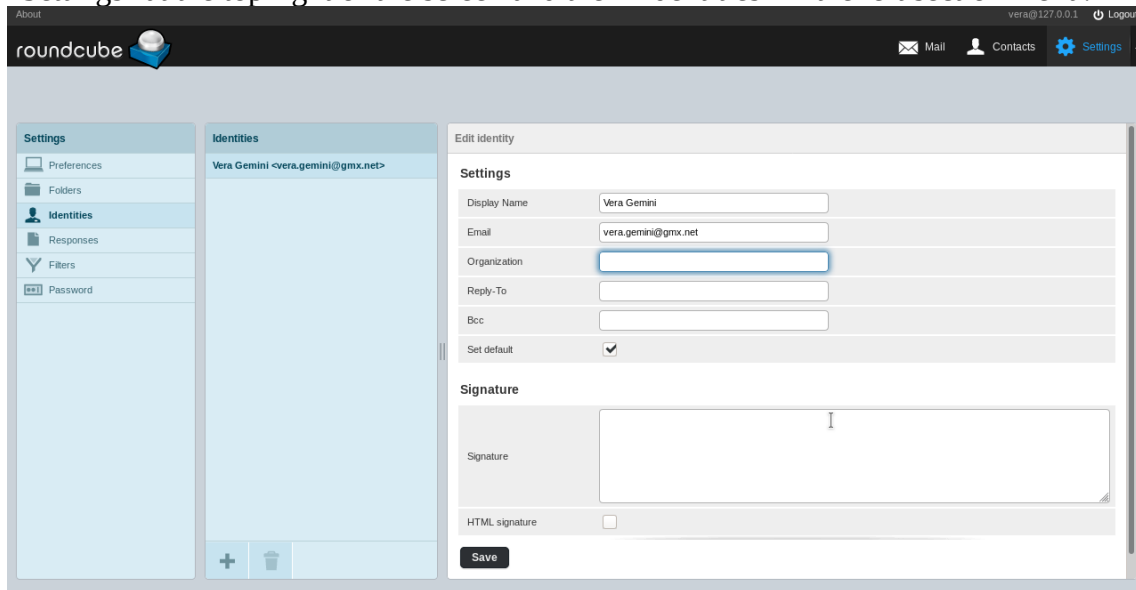


Press the button "Accept the Risk and Continue".
The reason is that vmmail uses a custom certificate.

After accepting the certificate, this screen appears:

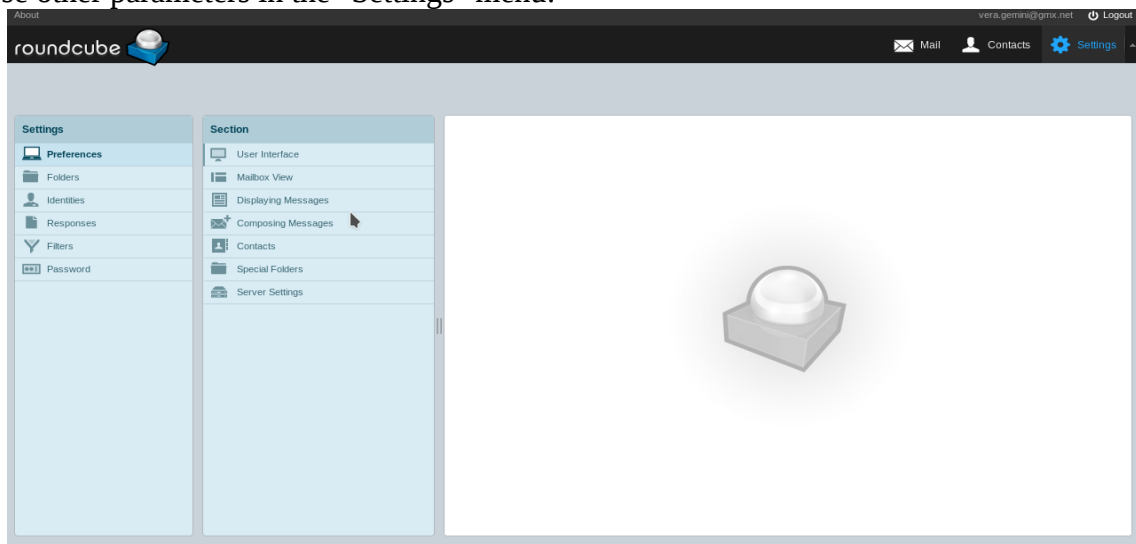


Press "Settings" at the top right of the screen and then "Identities" in the left section menu:



Enter the Display name and the Email address and press "Save".
In our example the Display name is "Vera Gemini" and the Email address is "vera.gemini@gmx.net"

Choose other parameters in the "Settings" menu:

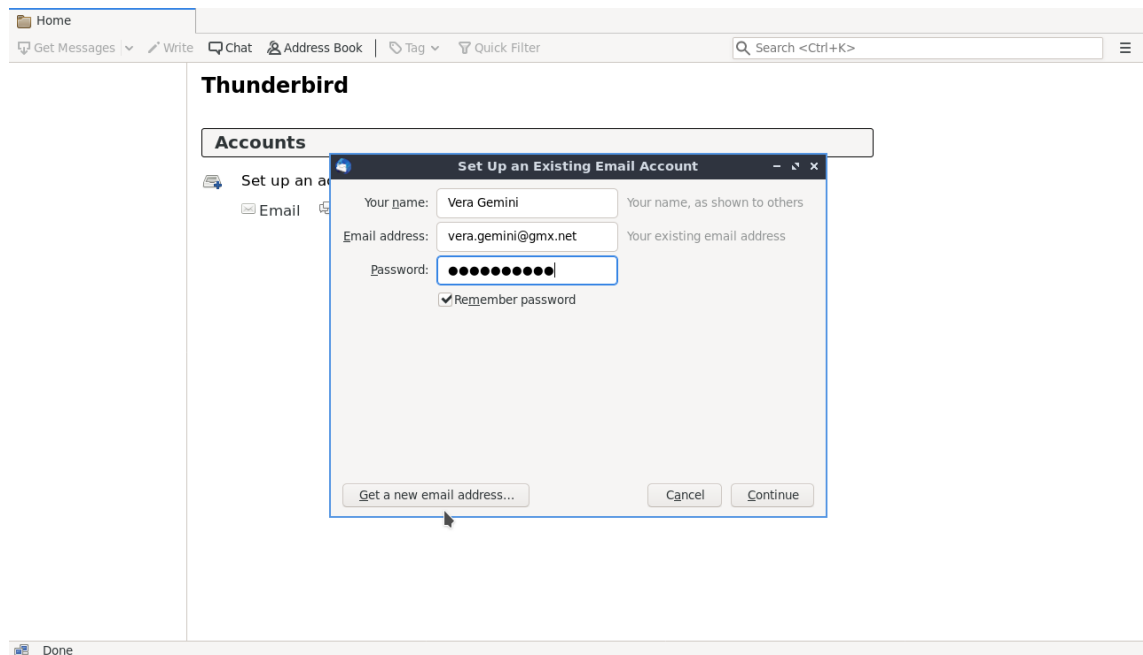


For more information, read here: <https://github.com/roundcube/roundcubemail/wiki/Online-Help>

4 Connect a mail client to vmmail

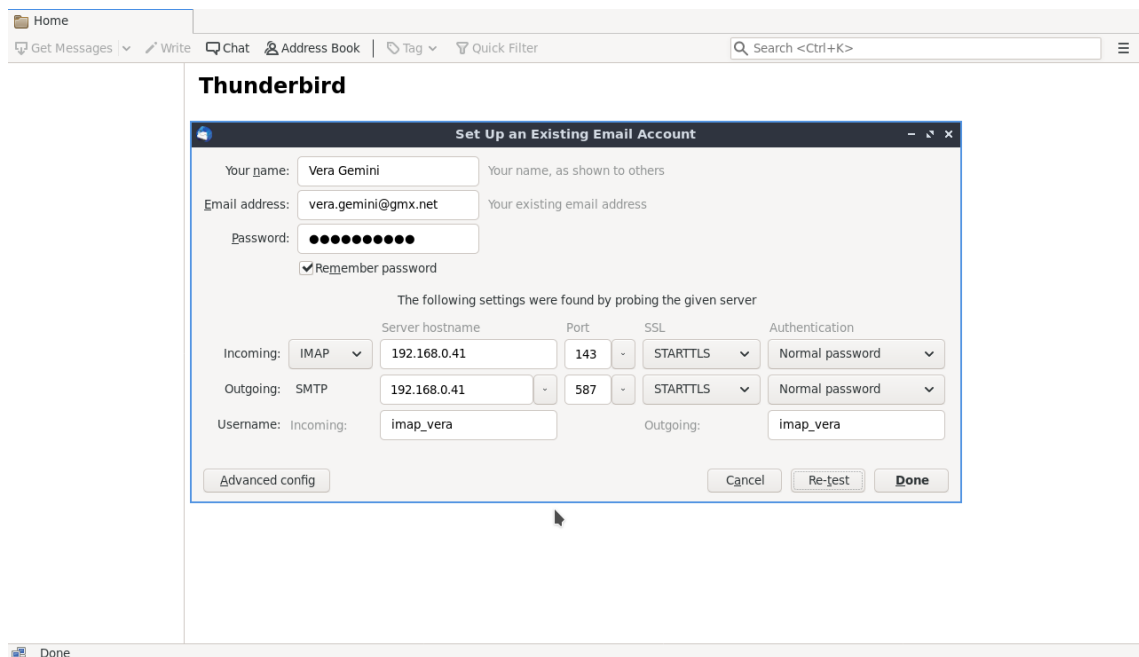
In this example, I'll show you how to connect thunderbird to vmmail and imap.

1. Start Thunderbird and choose in the Menu "Edit" "Account settings" and in the dialog chose "Add mail account".
2. Enter your mail address and password. In our example the mail adresse is "vera.gemini@gmx.net". The password is the IMAP password from the command madduser (parameter -i):



Press the button "Continue" and then press the button "Manual config".

3. To connect to vmmail, complete the entries:



Enter Server hostname. In our example the vmmail server has the IP address 192.168.0.41.

For incoming connection choose IMAP, Port 143, authentication type STARTTLS with "Normal password".

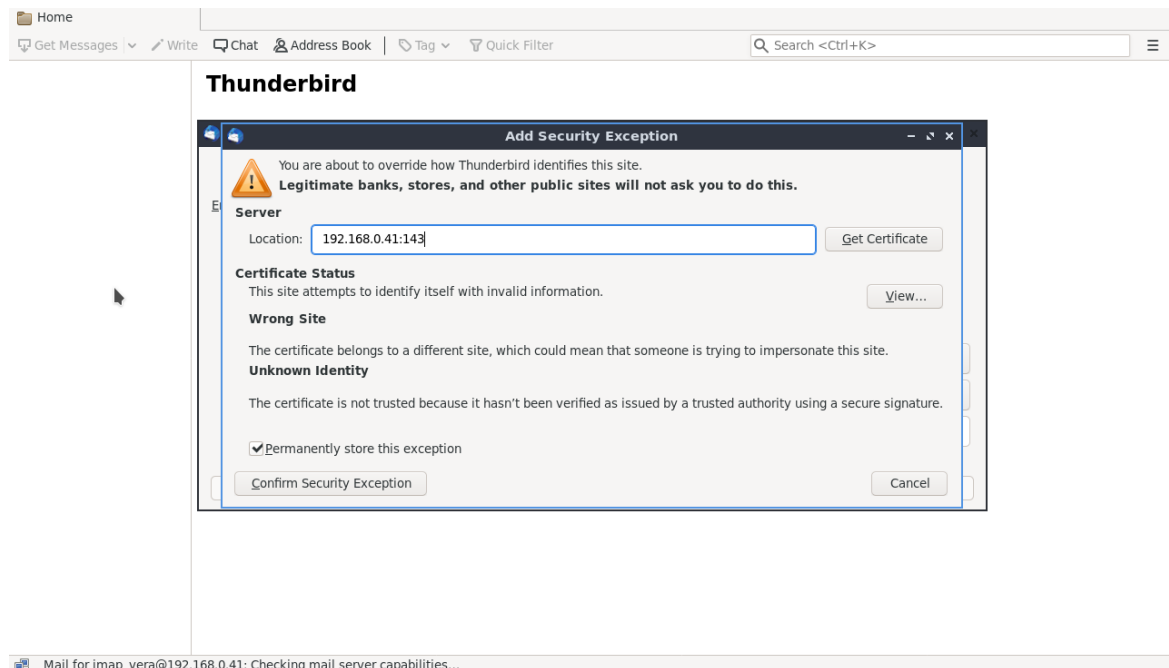
For outgoing connection choose SMTP, Port 587, authentication type STARTTLS with "Normal password".

This means that the communication between thunderbird and vmmail takes place encrypted.

The Username for incoming and outgoing connection is "imap_vera".

Press "Done" to establish the connection.

4. After setting up the connection, thunderbird notes that the certificate is not public, because the certificate is own signed:



Press "Confirm Security Exception".

5 Inside vmmail

vmmail uses standard components:

- postfix (to send mails)
- dovecot (IMAP server)
- roundcube (Webmail)
- fetchmail (get mails)

5.2 Start and stop services

```
Postfix:      service stop/start/restart postfix
Dovecot:      service stop/start/restart dovecot
Fetchmail:    service stop/start/restart fetchmail
Apache:       service stop/start/restart apache2
Show Status: systemctl status <service>
```

5.1 Create another certificate

The communication between roundcube and the browser is encrypted ssl. vmmail comes with own signed certificate. The certificates are in the folder `/mailserver/cert`.

To create another certificate, you can use the script `/mailserver/util/certificate.sh`

5.2 Archive mails

With the command `madduser` a new user is created. After that there are two new user: `username` and `archiv_username`.

All inbound and outbound mails store copies in user `archiv_username`. You can access the archived mails by logging into roundcube with the username "`archiv_<username>`" and the password that you created with `madduser` and the parameter `-a`.

In our example, you can login in roundcube with the Username "`archiv_vera`" and the password "`Secret.123`".

To archive mails, the file `/etc/postfix/bcc_maps` must be present in postfix. The structure of the file is: `<mail address> <archive mail address>`

Example: `vera.gemini@gmx.net archiv_vera@gmx.net`

The file `/etc/postfix/bcc_maps` is automatically supplemented when creating a user with the command `madduser`.

If you change this file, you must then execute the command `postmap /etc/postfix/bcc_maps`.

5.3 Repair mailbox index

To repair an mailbox use the command: `doveadm -v index -u <Username> <Mailbox>`

Example: Repair the inbox from user vera: `doveadm -v index -u vera INBOX`

5.4 Place of the Mails

The emails are stored in the home directory of a user . The folder is called `Maildir`. A file is created per email.

5.5 Get mails

Emails are picked up by `fetchmail` from the provider. The configuration file is called `/etc/fetchmailrc`. Structure of the file `/etc/fetchmailrc` to pick up emails for a user:

```
user <email> there with password <password> ssl is <username>
```

Example: `user vera.gemini@gmx.net there with password 'secret!1234' ssl is vera`

Get all files of the email address `vera.gemini@gmx.net` from the provider with `ssl` encryption and password `secret!1234` and send them to the user `vera`.

5.6 Change the pickup times

`fetchmail` picks up the mails from the provider.

Edit the configuration file `/etc/fetchmailrc` and change the entry "`set daemon 600`". `600` means that the mails are picked up every `600` seconds.

Restart `fetchmail`: `service fetchmail restart`

5.7 Important files

`/var/log/mail.log`: Log files from postfix

`/var/log/fetchmail.log`: Log files from `fetchmail`

6 Configuration

These changes have been made to customize vmmail. The following actions are automatically performed during the installation.

6.1 New user

Changes in file `/etc/skel`:

```
maildirname.dovecot /etc/skel
maildirname.dovecot /etc/skel/Maildir/.Drafts
maildirname.dovecot /etc/skel/Maildir/.Sent
maildirname.dovecot /etc/skel/Maildir/.Spam
maildirname.dovecot /etc/skel/Maildir/.Trash
maildirname.dovecot /etc/skel/Maildir/.Templates
```

6.2 Postfix

Extensions in file `/etc/postfix`:

These changes are for user authentication or come from a privileged network:

```
smtpd_recipient_restrictions = permit_sasl_authenticated permit_mynetworks
reject_unauth_destination
smtpd_helo_required = yes
smtpd_helo_restrictions = permit_mynetworks permit_sasl_authenticated
reject_invalid_helo_hostname reject_non_fqdn_helo_hostname
reject_unknown_helo_hostname
```

Store mails in directory Maildir:

```
home_mailbox = Maildir
```

Dovecot sends emails:

```
mailbox_command = /usr/lib/dovecot/dovecot-lda -f "$SENDER" -a "$RECIPIENT"
```

Activate SASL:

```
smtpd_sasl_type = dovecot
smtpd_sasl_path = private/auth
smtpd_sasl_auth_enable = yes
```

Ativate port 587 for sending mails with TLS encryption:

```
submission inet n      -      y      -      -      smtpd
  -o syslog_name=postfix/submission
  -o smtpd_tls_security_level=encrypt
  -o smtpd_sasl_auth_enable=yes
  -o smtpd_reject_unlisted_recipient=no
  -o smtpd_client_restrictions=$mua_client_restrictions
  -o smtpd_helo_restrictions=$mua_helo_restrictions
  -o smtpd_sender_restrictions=$mua_sender_restrictions
  -o smtpd_recipient_restrictions=
  -o smtpd_relay_restrictions=permit_sasl_authenticated,reject
```

```
-o milter_macro_daemon_name=ORIGINATING
```

6.2 Dovecot

Changes in file `/etc/dovecot/conf.d/10-mail.conf`:

```
mail_location = maildir:~/Maildir
```

Activate SASL. Edit file `/etc/dovecot.conf.d/10-master.conf`:

```
service auth {
  unix_listener /var/spool/postfix/private/auth {
    mode = 0660
    user = postfix
    group = postfix
  }
}
```

Disable plaintext authentication. Edit `/etc/dovecot/conf.d/10-auth.conf`:

```
disable_plaintext_auth = no
```

Use only TLS communication. Edit file `/etc/dovecot.conf.d/10-master.conf`:

```
service imap-login {
  inet_listener imaps {
    port = 993
    ssl = yes
  }
}
```

Activate sieve for filter mails. Edit `/etc/dovecot/conf.d/20-managesieve.conf`:

```
protocols = $protocols sieve
service managesieve-login {
  inet_listener sieve {
    port = 4190
  }
}
```

Path for sieve. Edit `/etc/dovecot/conf.d/90-sieve.conf`:

```
sieve = ~/.dovecot.sieve
sieve_global_path = /var/lib/dovecot/sieve/default.sieve
sieve_dir = ~/sieve
sieve_global_dir = /var/lib/dovecot/sieve/
```

Mail plugin for sieve. Edit `/etc/dovecot/conf.d/15-lda.conf`:

```
protocol lda {
  # Space separated list of plugins to load (default is global mail_plugins).
  mail_plugins = $mail_plugins sieve
}
```

Edit `/etc/dovecot/dovecot.conf`:

```
managesieve_notify_capability = mailto
managesieve_sieve_capability = fileinto reject envelope encoded-character vacation
subaddress comparator-i;ascii-numeric relational regex imap4flags copy include
variables body enotify environment mailbox date
```

6.3 Roundcube

Only localhost is the roundcube server. Edit `/etc/roundcube/config.inc.php`:

```
$config['default_host'] = '127.0.0.1';
```

Activate plugins. Edit `/etc/roundcube/config.inc.php`:

```
$config['plugins'] = array(  
    'archive',  
    'zipdownload',  
    'managesieve',  
    'password',  
    'newmail_notifier',  
);
```

6.4 Apache

Apache is a web server and is needed for roundcube.

Activate SSL. Edit `/etc/apache2/sites-available/default-ssl.conf`:

```
SSLCertificateFile /mailserver/cert/cert.pem  
SSLCertificateKeyFile /mailserver/cert/key.pem
```

Activate SSL modul:

```
a2enmod ssl  
a2ensite default-ssl.conf  
systemctl restart apache2
```