How to set up a mail server on your Raspberry Pi?

There are a lot of projects where you need to be able to send emails, but creating a mail server can also be a project in its own
So we will see the different steps of setting up a web server, be it a simple SMTP or a complete suite with a webmail

How to set up a mail server on your Raspberry Pi?
The installation of a mail server on Raspberry Pi must be done in several steps:

- **Install Postfix to send emails**
- **Set up Postfix to receive emails**
- **Add Dovecot for POP / IMAP management**
- **Install Roundcube as webmail**

We will now see each one of these steps in detail

Table of Contents

Prerequisites

If you want to set up an SMTP server, the requirements are almost non-existent
A Raspberry Pi and an SMT server that will serve as a relay is sufficient (Gmail for example)

If you want to follow the tutorial until the end you will need:

- A Raspberry Pi
- A domain name (I will use domain.com in all the steps below, don't forget to change it)
- A static public IP address (or at least one dynamic DNS service)

Also, know that I make this tutorial on Raspbian, so it I recommend to install Raspbian first (lite will be enough) by following this tutorial
I suggest you to use SSH to follow this tutorial from your usual computer and copy/paste commands and configurations

Security warning

Creating your secure mail server is not always easy
It's easy to miss a setup and turn your server into an open SMTP relay for the world, or get spammed over

So be sure to follow this tutorial precisely and then monitor the system logs to make sure that you are the only one doing the actions that are happening on your server
Setting up additional security features such as a firewall or fail2ban service can also be a good idea

DNS Configuration

IP Address

In the next steps, we will change our domain name DNS settings to use our IP address as the mail server

If you don't have a static public IP address, you will need to use a free dynamic DNS service like No-IP to redirect a domain to your dynamic IP address
You'll have to install a tool to give them regularly your current IP address, and they will redirect a domain like myserver.ddns.net to your last known IP address
Also if you don't have a domain name, I think that you can use this alias directly

For an email server, it's not a perfect option, because you'll have small downtimes when your IP change, but if you're not too serious about your emails, it's going to be fine

DNS zone configuration

Now you need to go to your domain name registrar and change this zones to match your current IP address (or your dynamic DNS provider domain name):

- MX
- pop.domain.com
- smtp.domain.com
- imap.domain.com
- mail.domain.com

The MX one is mandatory to receive email on your Raspberry Pi

The other ones are just easy to remember names for access to your emails

Changes may take up to 24 hours before applying
You can monitor the progress of the changes with an online tool like Network-Tools.com

Send emails with Postfix

Now let's move on to the main things and so to the installation of Postfix

Postfix will be the base of our mail server.
It will allow us to send and receive emails corresponding to our domain name
In this step, we'll see how to send emails

Installation

Start by installing the Postfix package:

```
sudo apt-get install postfix
```

During the installation you'll have to choose this two configuration options:

- The general type of mail configuration: Internet site
- System mail name: domain.com

Now we will make two changes in the configuration that has been generated

- Open the configuration file
  ```
  sudo nano /etc/postfix/main.cf
  ```

- Disable IPv6 management
  - Replace
    ```
    inet_protocols = all
    ```

  - By
    ```
    inet_protocols = ipv4
    ```

- Enter your domain name as myhostname
  ```
  myhostname= domain.com
  ```

- If you are on a local network, most of the Internet providers don't allow to send emails directly
  So you may need to add a relay host in your configuration
  Ask your provider for the server to use as a relay
  ```
  relayhost = smtp.yourprovider.com
  ```

- Save and exit (CTRL+O, Enter, CTRL+X)
- Restart Postfix

```
sudo service postfix restart
```

At this point, the server should start properly without startup errors
If this is not the case, look to solve these problems before continuing

Testing

We'll now make our first test by sending an email from the Raspberry Pi

Telnet

For this test, we'll use telnet to connect to postfix

- Install telnet
  ```
  sudo apt-get install telnet
  ```
- Connect to the SMTP server
  ```
  telnet localhost 25
  ```
- Enter this series of commands
  - ehlo
  - mail from: you@domain.com
  - rcpt to: user@mail.com
  - data
  - Subject: test
  - Test
  - .
  - quit
- This commands sequence will create an email and send it to user@mail.com (external email address)

Here is the full trace:

```
pi@raspberrypi:~ $ telnet localhost 25
Trying ::1...
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
220 domain.com ESMTP Postfix (Raspbian)
ehlo domain.com
250-domain.com
250-PIPELINING
250-SIZE 10240000
250-VRFY
```

```
250-ETRN
250-STARTTLS
250-ENHANCEDSTATUSCODES
250-8BITMIME
250-DSN
250 SMTPUTF8
mail from: me@domain.com
250 2.1.0 Ok
rcpt to: youremail@gmail.com
250 2.1.5 Ok
data
354 End data with <CR><LF>.<CR><LF>
Subject: test
Test
.
250 2.0.0 Ok: queued as 44EAE1FE54
quit
221 2.0.0 Bye
```

Mailutils

If you are looking for a most friendly way to do this, you can install mailutils to use the mail command

- Install mailutils
  ```
  sudo apt-get install mailutils
  ```
- Send a test email with the mail command
  ```
  echo 'Test' | mail -s "Test mail command" you@gmail.com
  ```

In both cases, you can follow the email sending in this log file: /var/log/mail.log

Receive emails with Postfix

Now it's time to edit our Postfix configuration to receive emails

Configuration

We'll do this by using the Maildir mailboxes format
Maildir is a safe and easy way to store emails: each mailbox is a directory, and each email is a file

- Edit the configuration file

```
sudo nano /etc/postfix/main.cf
```

- Add these lines at the end of the file

```
home_mailbox = Maildir/
mailbox_command =
```

This configuration will tell Postfix to create a Maildir folder for each system user
This folder will now host your new incoming emails

Now we need to create the Maildir folder template by following these steps

- Install this packages

```
sudo apt-get install dovecot-common dovecot-imapd
```

- Create folders in the template directory

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

These templates will be used for the next users you will create
But for those already existing, you have to do it manually

For example, you have to run this commands for pi:

```
sudo cp -r /etc/skel/Maildir /home/pi/
sudo chown -R pi:pi /home/pi/Maildir
sudo chmod -R 700 /home/pi/Maildir
```

Testing

You can now repeat the same kind of test as before, but put the user pi in the receiver

```
echo "Test" | mail -s "Test" pi@domain.com
```

And then check that the mail has arrived in the Maildir folder

```
pi@raspberrypi:~ $ cat
/home/pi/Maildir/new/1535959347.Vb302I3dc1bM266961.raspberrypi
Return-Path: <pi@raspberrypi>
X-Original-To: pi@domain.com
Delivered-To: pi@domain.com
Received: by webinpact.com (Postfix, from userid 1000)
        id 26B5020423; Mon,  3 Sep 2018 07:22:27 +0000 (UTC)
Subject: Test
```

```
To: <pi@domain.com>
X-Mailer: mail (GNU Mailutils 3.1.1)
Message-Id: <20180903072227.26B5020423@domain.com>
Date: Mon,  3 Sep 2018 07:22:27 +0000 (UTC)
From: pi@raspberrypi

Test
```

You should have only one mail in the new folder, use tab auto-completion to find it
As you can see the return path address is not correct, you have to change your hostname to fix this

```
sudo hostname domain.com
```

But we reach our goal for this step.
We receive emails sent to our domain

Secure the mail server

As I said at the beginning, there are some options to put in place to secure a minimum of the web server

- Edit your configuration file
  ```
  nano /etc/postfix/main.cf
  ```

- Add these lines at the end of the file
  ```
  smtpd_helo_restrictions =
          permit_mynetworks,
          permit_sasl_authenticated,
          reject_invalid_helo_hostname,
          reject_non_fqdn_helo_hostname,
          reject_unknown_helo_hostname,
          check_helo_access hash:/etc/postfix/helo_access
  ```

  This configuration will limit SMTP usage to the local network and reject people saying that they are from your domain name

- Create the helo_access file
  ```
  sudo nano /etc/postfix/helo_access
  ```

  In this file, we need to put the list of domain name we want to block

- Paste these lines into it
  ```
  X.X.X.X   REJECT
  domain.com   REJECT
  smtp.domain.com   REJECT
  mail.domain.com   REJECT
  ```

Replace X.X.X.X with your public IP address

- Restart postfix daemon

```
sudo service postfix restart
```

Install Dovecot to allow POP and IMAP connections

We now have a functional and secure mail server
So we will move on to the next part, which is to make this mail server accessible to POP and IMAP clients via SASL authentication.

As you may have noticed, we already installed Dovecot in the previous step to create Maildir folders
The only thing left to do is to finalize the configuration

Configuration

- Open the Dovecot configuration file

```
sudo nano /etc/dovecot/dovecot.conf
```

- Remove IPV6 support
  - Replace

```
#listen = *, ::
```

  - By

```
listen = *
```

- Open the Dovecot mail configuration file

```
sudo nano /etc/dovecot/conf.d/10-mail.conf
```

- Edit the Maildir folder
  - Replace

```
mail_location = mbox:~/mail:INBOX=/var/mail/%u
```

  - By

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

- Open the Dovecot master configuration file

```
sudo nano /etc/dovecot/conf.d/10-master.conf
```

- Tell Dovecot to listen for SASL authentification

    - Comment all lines from the default service auth paragraph (add # before each line)
    - Add these lines a the end of the file

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

- Open the Dovecot auth configuration file

```
sudo nano /etc/dovecot/conf.d/10-auth.conf
```

- Allow plaintext auth
    - Uncomment and edit this line

```
#disable_plaintext_auth = yes
```

    - To become this one

```
disable_plaintext_auth = no
```

- Edit this line too

```
auth_mechanisms = plain login
```

- Edit the Postfix configuration file

```
sudo nano /etc/postfix/main.cf
```

- Tell Postfix to use SASL (add these lines)

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

- Restart Dovecot and Postfix

```
sudo service postfix restart
sudo service dovecot restart
```

Testing

To test that SASL authentication works well, we will create a test user and try to connect to the mail server with it

User creation

Create a new user with login test and the password you want

```
adduser test
```

Get the encoded password

We need to get our password in a base64 encoded format
You can get it with this command:

```
printf '\0%s\0%s' '[LOGIN]' '[PASSWORD]' | openssl base64
```

In my case (test/password), the string displayed is AHRlc3QAcGFzc3dvcmQ=

Log in

We can now retry a connection with telnet by specifying this string for identification
The only change is that we need to use the AUTH PLAIN command to log in

```
pi@raspberrypi:~ $ telnet localhost 25
Trying ::1...
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
220 domain.com ESMTP Postfix (Raspbian)
ehlo domain.com
250-domain.com
250-PIPELINING
250-SIZE 10240000
250-VRFY
250-ETRN
250-STARTTLS
250-AUTH PLAIN LOGIN
250-ENHANCEDSTATUSCODES
250-8BITMIME
250 DSN
AUTH PLAIN AHRlc3QAcGFzc3dvcmQ=
235 2.7.0 Authentication successful
mail from: me@domain.com
250 2.1.0 Ok
rcpt to: youremail@gmail.com
250 2.1.5 Ok
data
354 End data with <CR><LF>.<CR><LF>
Subject: test
Test
.
250 2.0.0 Ok: queued as 44EAE1FE54
```

```
quit
221 2.0.0 Bye
```

Enable IMAPS

Dovecot allow us to connect with IMAP (telnet localhost 143)
But we now need to enable TLS for IMAP on the port 993

- Edit the Dovecot master configuration file
  ```
  sudo nano /etc/dovecot/conf.d/10-master.conf
  ```

- Enable listener on the port 993
  The configuration should look like this
  ```
  service imap-login {
    inet_listener imap {
      port = 143
    }
    inet_listener imaps {
      port = 993
      ssl = yes
    }
  }
  ```

- Then edit the SSL configuration file
  ```
  sudo nano /etc/dovecot/conf.d/10-ssl.conf
  ```

- Enable SSL by editing the first line of the file
  ```
  ssl = yes
  ```

- Then uncomment the certificate locations
  ```
  ssl_cert = </etc/dovecot/dovecot.pem
  ssl_key = </etc/dovecot/private/dovecot.pem
  ```

- You also have to uncomment the ssl_protocols options to deny SSLv3
  ```
  ssl_protocols = !SSLv3
  ```

- Finally, restart Dovecot server
  ```
  sudo service dovecot restart
  ```

Dovecot is now responding on the port 993, but if you try to connect you will get an error:

```
imap-login: Fatal: Couldn't parse private ssl_key: error:0906D06C:PEM
routines:PE
```

We need to generate our SSL certificate with these commands

```
cd /etc/dovecot
sudo openssl req -new -x509 -nodes -config /usr/share/dovecot/dovecot-
openssl.cnf -out dovecot.pem -keyout private/dovecot.pem -days 365
```

You can now check that your IMAPS server is working, with this command:

```
openssl s_client -connect localhost:993
```

The login syntax is: a login [LOGIN] [PASSWORD]

The full trace should look something like this:

```
* OK [CAPABILITY IMAP4rev1 LITERAL+ SASL-IR LOGIN-REFERRALS ID ENABLE
IDLE AUTH=PLAIN AUTH=LOGIN] Dovecot ready.
a login pi password
a OK [CAPABILITY IMAP4rev1 LITERAL+ SASL-IR LOGIN-REFERRALS ID ENABLE
IDLE SORT SORT=DISPLAY THREAD=REFERENCES THREAD=REFS
THREAD=ORDEREDSUBJECT MULTIAPPEND URL-PARTIAL CATENATE UNSELECT
CHILDREN NAMESPACE UIDPLUS LIST-EXTENDED I18NLEVEL=1 CONDSTORE QRESYNC
ESEARCH ESORT SEARCHRES WITHIN CONTEXT=SEARCH LIST-STATUS BINARY MOVE
SPECIAL-USE] Logged in
b select inbox
* FLAGS (\Answered \Flagged \Deleted \Seen \Draft)
* OK [PERMANENTFLAGS (\Answered \Flagged \Deleted \Seen \Draft \*)]
Flags permitted.
* 3 EXISTS
* 0 RECENT
* OK [UNSEEN 1] First unseen.
* OK [UIDVALIDITY 1536038369] UIDs valid
* OK [UIDNEXT 4] Predicted next UID
b OK [READ-WRITE] Select completed (0.000 + 0.000 secs).
b logout
* BYE Logging out
b OK Logout completed (0.000 + 0.000 secs).
closed
```

You are now able to connect to your IMAP server from any clients in the LAN
If you want to access your server from anywhere, don't forget to open the needed ports in your router firewall

Set up Roundcube to add a webmail access

Most of the work is done, but we will push a little more and add a Webmail server to our mail server on Raspberry Pi
Roundcube is a modern free and open source webmail software

The big advantage of Roundcube compared to other webmails is that it's available directly in the Debian and therefore Raspbian repositories.

If you started from a blank Raspbian, you would need to install a MySQL server first (MariaDB)

MySQL server

If you don't have one yet, you need to install a MySQL server to store the Roundcube database:

```
sudo apt-get install mariadb-server
```

Then you need to follow these steps to set a root password, and create a Roundcube user:

- Connect with root (we need sudo because only root can access)
  ```
  sudo mysql -uroot
  ```

- Set the root password
  ```
  use mysql;
  UPDATE user SET password=PASSWORD('YourPassword'), plugin='' WHERE
  User='root' AND Host = 'localhost';
  FLUSH PRIVILEGES;
  ```

  Don't forget to replace "YourPassword" with a secure password

- Create a new user for Roundcube
  ```
  CREATE USER 'roundcube'@'localhost' IDENTIFIED BY 'password';
  ```

  Replace "password" with your chosen password

- Create the Roundcube database
  ```
  CREATE DATABASE roundcubemail;
  ```

- Give all privileges to the Roundcube user on the Roundcube database
  ```
  GRANT ALL PRIVILEGES ON roundcubemail.* to
  'roundcube'@'localhost';
  ```

- Quit the mysql console

```
FLUSH PRIVILEGES;
quit
```

Your database server is ready, move to the next step

Roundcube

To install it, enter the following command:

```
sudo apt-get install roundcube roundcube-plugins
```

This will also automatically install all other dependencies (mainly Apache, PHP and MySQL client)

Again, the installation wizard will ask you these questions about your MySQL server:

- Imap Server: ssl://imap.domain.com:993
- Default language: set it as you want
- Configure database with dbconfig-common: yes
- MySQL application password for Roundcube: your Roundcube user password
- Database administrator password: your MySQL root password

Now edit the apache configuration for Roundcube to enable the web app

```
sudo nano /etc/apache2/conf-enabled/roundcube.conf
```

Uncomment the first line

```
Alias /roundcube /var/lib/roundcube
```

Then go to http://[RASPBERRY-IP]/roundcube to see the web interface

If you get any error, you can restart the installation wizard with this command:

```
sudo dpkg-reconfigure roundcube-core
```

You can now log in with your credentials created in the previous step, or with the account “pi”
Enjoy your webmail now, and remember that it is possible to add many plugins on RoundCube to extend its functionality

Logs and configuration file summary

So we saw how to set up a full mail server on Raspberry Pi
If you have had any errors, or want to go further, here is the summary of the file locations

Postfix

In this tutorial we are using Postfix to send and receive emails, it’s the core of the mail server

Configuration

- /etc/postfix/main.cf: Main configuration for Postfix
- /etc/postfix/master.cf : Processes configuration for Postfix

Log files

- / var/log/mail.log: Here you can see all mail traces, and errors if there are

Dovecot

We installed Dovecot to manage IMAP connections with a SASL security layer

Configuration

- /etc/dovecot/dovecot.conf: The main configuration of Dovecot
- /etc/dovecot/conf.d/: This subfolder contains several files with each part of the configuration to know easily where's the option that you're looking for

Log files

- /var/log/syslog: Dovecot doesn't have a specific log file, it's using the main syslog file

Apache

Apache is used in this tutorial to run Roundcube
Normally you shouldn't need to change something unless Roundcube is not accessible at all.

Configuration

- /etc/apache2/apache2.conf: The main configuration file for apache2
- /etc/apache2/conf-enabled/: Here you will find the configuration for some Apache services (like Roundcube.conf)
- /etc/apache2/sites-enabled/: Here you will find the configuration for any Apache website

Log files

- /var/log/apache/error.log: If you get any errors with Apache, you can find them here

Roundcube

And finally, we installed Roundcube to add webmail to our mail server

Configuration

- /etc/roundcube/config.inc.php: Here is the main configuration file for Roundcube

Log files

- /var/log/roundcube/errors: If you get some issue with Roundcube, you'll find the errors in this file

Conclusion

And here we are at the end of this tutorial
You have learned to set up a complete mail server with:

- Postfix for transport
- Dovecot for secure authentication
- Roundcube for web access to your emails

As you may have noticed, it's not a simple thing to set up, there's still a lot of configuration options and it can be a lot of work to put that in place at home

I think in most cases, the first part with Postfix is the one that will interest you
You are going to be able to send emails from your different projects, but not necessarily to set up all the other steps

In any case if you really need to install everything you know how to do

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28 comments

Toe February 19, 2019 . Reply

keep getting “roundcube ERROR 1045 (28000): Access denied for user ‘root’@’localhost’ (using password: NO)” have reinstalled but still the same

RaspberryTips *Post author* . February 20, 2019 . Reply

Hi,

You probably miss the Roundcube MySQL configuration during the installation
The user name must be ’roundcube’ and the password ‘YourPassword’ if you followed exactly this tutorial

You may try ‘dpkg-reconfigure roundcube’ to update the MySQL user and password

Harry March 12, 2019 . Reply

Hi RaspberryTips.com,

I wonder if you could post tutorial how to “SET UP A MAIL SERVER ON YOUR RASPBERRY PI” at home (using regular home internet cable service) which it behind CGNAT. Is it possible to use some sort of Ngrok. Serveo service ?.. or maybe in combination of Ngrok/Serveo service + Mailgun/mailjet ?... I’m a teacher at a high school at Semarang City Indonesia, I have many of my students asking me about this and i couldn’t find any.

Thank you.

RaspberryTips *Post author* . March 15, 2019 . Reply

Hi,
Thanks for your comment
Unfortunately I don’t have this kind of connection, so I can’t help you
But maybe someone else will see this message and can help

ngrok seems to be a good idea from what I can read on other forums

Heydrickx March 24, 2019 . Reply

Hi!
First of all, thank you very much. After several attempts to create a mail server on my RP3, it is finally a success thanks to you. This tutorial is clear, easy and efficient.

Just a few notes :
– on my internet access, port 25 is blocked. I used dnsexit to solve the issue and reroute mails to my 8001 port. I edited master.cf file consequently and it works just fine.
– after I created and edited the sudo nano /etc/postfix/helo_access file, I had to launch the command : postmap /etc/postfix/helo_access. This created a helo_access.db file so I edited main.cf consequently.
– command sudo hostname domain.com will change hostname only until next reboot. I edited /etc/hostname and /etc/hosts to get it changed permanently

Hope this can help other users ;o)

RaspberryTips *Post author* . March 24, 2019 . Reply

Hi Heydrickx,

Thanks for your comment!

toejam April 1, 2019 . Reply

hi,

great tutorial but i keep getting a “Relay access denied” error when i try to send emails to my roundcube address from windows mail.

i can send then from roundcube but i never receive any emails, i can only send them

shalacix April 7, 2019 . Reply

HI,

I screwed up installation of mariadb or roundcube somewhere. At the end, I have no /etc/apache2/conf-enabled/roundcube.conf to edit...
Is there a way to totally remove – files and all – both? I removed both using remove –auto-remove but when I reinstalled mariadb, I found that the database mysql and its users etc _stayed_ undeleted.

thanks

RaspberryTips *Post author* . April 8, 2019 . Reply

Hi,

Thanks for your comment

Did you try “apt-get –purge remove PACKAGE” ?

shalacix April 8, 2019 . Reply

Hi,

apache does not give the Roundcube login page
it gives the raw php like this:
<?php
/**
+———————————————————————————-+
| Roundcube Webmail IMAP Client |
| Vers—etc etc

Is there a way to correct this?

thanks

shalacix April 8, 2019 . Reply

...yes, in the end I did. Now I got up to Apache up, but it only shows the raw php code, not the login screen.
I think it went wrong here:

As you wrote —
“sudo apt-get install roundcube roundcube-plugins

This will also automatically install all other dependencies (mainly Apache, PHP and MySQL client)”

This install stopped in the middle. I rerun the above entry, but Apache and php were _not_ installed – only when I installed them one by one. So I think apache has to be configured for roudcube manually but I dont know where….

RaspberryTips *Post author* . April 10, 2019 . Reply

Hello,

I think that this post will give you the answer:
https://raspberrytips.com/web-server-setup-on-raspberry-pi/

You probably miss the libapache2-mod-php package

Ludi July 15, 2019 . Reply

Hi RaspberryTips

In the above reply you said: “I think that this post will give you the answer: https://raspberrytips.com/web-server-setup-on-raspberry-pi/. You probably miss the libapache2-mod-php package.”

How can I interpret this?

A) Did you install a LAMP before the tutorial “HOW TO SET UP A MAIL SERVER ON YOUR RASPBERRY PI?”using the tutorial first you mentioned as “https://raspberrytips.com/web-server-setup-on-raspberry-pi/” or

B) Using this tutorial “HOW TO SET UP A MAIL SERVER ON YOUR RASPBERRY PI?”is there a need using the tutorial first you mentioned as “https://raspberrytips.com/web-server-setup-on-raspberry-pi/”

C) Using this tutorial “HOW TO SET UP A MAIL SERVER ON YOUR RASPBERRY PI?”are there no dependencies exept your advise above “Also, know that I make this tutorial on Raspbian, so it I recommend to install Raspbian firs(lite will be enough) by following this tutorial” (link: https://raspberrytips.com/install-raspbian-raspberry-pi/)?

Kind regards, Ludi

RaspberryTips *Post author* . July 16, 2019 . Reply

Hum, not sure to see what you wanna say

If you want to use the webmail part, you’ll need a working LAMP server shalacix had an issue with apache and php not working, so he needed to install libapache2-mod-php

What is your question exactly?
Have you an issue with the webmail installation?

Ludi July 17, 2019

Hello RaspberryTips
Thanks for the reply. I think you have really answered my (complicate) question: Especially when using Roundcube, I need a LAMP server first, you described in https://raspberrytips.com/web-server-setup-on-raspberry-pi/. But, since I have secured all my web servers with Let's Encrypt Certificates, I just wanted to know if I can take one of these images which already has certs for i.e. domain.com, http://www.domain.com, and mail.domain.com which have

– https://www.ssllabs.com/ssltest/analyze.html?d=domain.com => A+
– https://www.ssllabs.com/ssltest/analyze.html?d=www.domain.com => A+
– https://www.ssllabs.com/ssltest/analyze.html?d=mail.domain.com => A+

before installing "your" mail server described in https://raspberrytips.com/web-server-setup-on-raspberry-pi/?

And another question is:
It's already the third time I've got exactly the same error using "telnet localhost 25":
535 5.7.8 Error: authentication failed:
I would be very appreciated if you could help me coming out of this loop!

Kind regards, Ludi

RaspberryTips *Post author* . July 17, 2019

Hi,

Yes you can absolutely use your existing certs

And the goal of the "telnet localhost 25" is to check if the SMTP server is running
If it doesn't answer, check that it's running
If it doesn't start, check the log file to see if you have an error on start

shalacix April 9, 2019 . Reply

Hello,

this one:

ssl_key = </etc/dovecot/private/dovecot.pem

should not be
ssl_key = </etc/dovecot/private/dovecot.key

?

RaspberryTips *Post author* . April 10, 2019 . Reply

Hi,

Nope, it's correct in the post

- ssl_cert = < /etc/dovecot/dovecot.pem
- ssl_key = < /etc/dovecot/private/dovecot.pem

shalacix April 11, 2019 . Reply

Hi again, Patrick,

At the end of roundcube config it asks for the admin user, which is root. No password is asked, _but it would be needed_, as the process runs on an error (quoting the screen):

┌──┤ Configuring roundcube-core ├──┐
│ An error occurred while installing the database: │
│ │
│ ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: NO) . Your options are: │
│ * abort – Causes the operation to fail; you will need to downgrade, │
│ reinstall, reconfigure this package, or otherwise manually intervene │
│ to continue using it. This will usually also impact your ability to │
│ install other packages until the installation failure is resolved. │
│ * retry – Prompts once more with all the configuration questions │
│ (including ones you may have missed due to the debconf priority │
│ setting) and makes another attempt at performing the operation. │
│ * retry (skip questions) – Immediately attempts the operation again, │
│ skipping all questions. This is normally useful only if you have │
│ solved the underlying problem since the time the error occurred. │
│ * ignore – Continues the operation ignoring dbconfig-common errors. │
│ This will usually leave this package without a functional database. │
│ │
│ Next step for database installation: │
│ │
│ abort │
│ retry │
│ retry (skip questions) │
│ ignore │
│ │
│ │
│

Is there a way to edit /etc/dbconfig-common/roundcube.conf for a root password afterwards?

thank you very much

Laszlo

RaspberryTips *Post author* . April 11, 2019 . Reply

Hi shalacix,

I think you need to set a Mysql password and reconfigure roundcube

Maybe with dpkg –reconfigure or dbconfig-common

If you don't find it, I will try to redo the installation to answer your questions 🙂

shalacix April 11, 2019 . Reply

Thanx

I am using a pi, also arch on a rock64
it looks like the Roundcube setup has changed – the questions during its install should be as these below, but are in reality not all are asked:

OK: Imap Server: ssl://imap.domain.com:993
OK: Default language: set it as you want
not asked: Configure database with dbconfig-common: yes
OK: MySQL application password for Roundcube: your Roundcube user password
not asked: Database administrator password: your MySQL root password

Also I suspect that sudo apt-get install roundcube roundcube-plugins does not install apache and php, or not all of them: if it did, sudo apt apache2 and sudo apt php would tell "nothing to do, all up to date' — but they _do_ the full install instead.

Then of course apache starts no problem but it either is dissociated from Roundcube or just displays the php code.

It probably can be welded back together by conf files' amendments, but I have no deep knowledge of linux, I am just hacking away :/

RaspberryTips *Post author* . April 12, 2019 . Reply

Hi,

The good command to reconfigure roundcube is "dpkg-reconfigure roundcube-core" (I give it in the post)

With this you can change the mysql password
Make sure to give the correct database name (roundcubemail in my post, roundcube by default)

When I fixed this name, the issue with mysql root password disappeared

Felix Paquin April 22, 2019 . Reply

i set up your mail server, and it was awesome

BUT, when i send e-mails, they arrives in the junk email (on gmail and hotmail), and i didn't receive the email sent to me.

all the port is open, and i created cert with let's encrypt, and i change the location of the files in the config files to fit with the new let's encrypt cert.

what's goes wrong ?

thanks !

Messor May 25, 2019 . Reply

Hi have 2 very noob questions.

1. During the installation of roundcube i did exit the installer by accident. How can i restart the installer? Remove and reinstall does not do the trick, because it does no longer kicks off the installer.

2. i probally skipped or forgot something i cannot find what. but i keep getting this error when starting dovecot:
configuration file /etc/dovecot/conf.d/10-ssl.conf line 12: ssl_cert: Can't open file /etc/dovecot/dovecot.pem: No such file or direct. When i try to generate it i get this: writing new private key to 'private/dovecot.pem'
req: Can't open "private/dovecot.pem" for writing, No such file or directory

I have been trying to solve this myself, but after a week still stuck. So i thought lets try it this way.

Ludi July 24, 2019 . Reply

Hi RaspberryTips, I have the following situation:

pi@ifit:~ $ cd /etc/dovecot
pi@ifit:/etc/dovecot $ sudo openssl req -new -x509 -nodes -config /usr/share/dovecot/dovecot-openssl.cnf -out dovecot.pem -keyout private/dovecot.pem -days 365
Generating a RSA private key
.....+++++
.....+++++
writing new private key to 'private/dovecot.pem'
—
pi@ifit:/etc/dovecot $ cd
pi@ifit:~ $ sudo service dovecot restart

Logfile entry in /var/log/mail.log:
Jul 24 15:47:17 ifit dovecot: master: Warning: Killed with signal 15 (by pid=4053 uid=0 code=kill)

Jul 24 15:47:18 ifit dovecot: master: Dovecot v2.2.27 (c0f36b0) starting up for imap (core dumps disabled)

pi@ifit:~ $ openssl s_client -connect localhost:993
1996460032:error:0200206F:system library:connect:Connection refused:../crypto/bio/b_sock2.c:108:
1996460032:error:2008A067:BIO routines:BIO_connect:connect error:../crypto/bio/b_sock2.c:109:
1996460032:error:0200206F:system library:connect:Connection refused:../crypto/bio/b_sock2.c:108:
1996460032:error:2008A067:BIO routines:BIO_connect:connect error:../crypto/bio/b_sock2.c:109:
connect:errno=111

What is that? Never seen such messages!

Regards, Ludi

RaspberryTips *Post author* . July 25, 2019 . Reply

Hi Ludi,

I don't know what kind of issue could cause this error
As you can see in my command output, it works fine during my tests

If you think that everything before this part has been completed successfully on your side, try to check if these posts can help :

https://support.google.com/cloudidentity/answer/9190869?hl=en
https://github.com/mailcow/mailcow-dockerized/issues/2185

You can also ask for help on the Raspberry Pi forum directly :
https://www.raspberrypi.org/forums/viewforum.php?f=36

Or even on a Linux forum as there is probably no difference between Debian and Raspbian about this

As there are many questions here, I will try to do it again soon and check if it needs some updates
But for now I can't help you more

Good luck

Ludi July 31, 2019 . Reply

Hi RaspberryTips

Thanks a lot for constant efforts. But there must be something else because I have a strong suspicion that it's the new Buster release of Raspbian. On which Raspbian release your tutorial has been layed on? And, I have a big uncertainty of my DNS entries at Alfahosting regarding your specific tutorial layout. Could you give some more hints or recommendations about the basic prerequisites (especially, issues behind a NAT router or a bridged Pi access, and/or DNS

entries, how to get a PTR record, who is responsible for, what about more than one MX entries, and so on)? Thank very much in advance!

Regards, Ludi

Serhii August 31, 2019 . Reply

Great tutorial!
I could finish it much faster if i was ready instruction more carefully 😉

2 notes and 1 question:
1. before roundcube setup you tell to create database “roundcubemail” – this probably cause a lot of people like me to have headache like ‘Access denied for user ‘root’@’localhost’’ later. The reason is – by default roundcube’s install wizard propose to use ’roundcube’ database and until you get there you totally forgot about ’roundcubeemail’ name 🙂 and press “Yes” 🙂
2. after editing “/etc/apache2/conf-enabled/roundcube.conf” file it better to note that you need to restart Apache server to apply changes. Otherwise it will show the 404 error page.

and now question:
/etc/postfix/helo_access there is X.X.X.X line with external IP. but this is good for static one, how to solve the problem when you have dynamic dns setup? is it possible at all?

Thank you again for this tutorial and hope you can help with my question.

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Hi, I'm Patrick. I am a Linux system administrator, and I am passionate about the Raspberry Pi and all projects on this topic.
I created this site to share with you what I learned about it

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