# Setup mail server on ubuntu 14.04 ( Postfix – dovecot )

Posted (http://www.krizna.com/ubuntu/setup-mail-server-ubuntu-14-04/) & krizna (http://www.krizna.com/author/krizna/) 🕒 Ubuntu (http://www.krizna.com/category/ubuntu/), Ubuntu 14.04 (http://www.krizna.com/category/ubuntu/ubuntu-14-04/)

This tutorial explains how to setup mail server on ubuntu 14.04 using postfix,dovecot and squirrelmail.

- » Postfix (http://www.postfix.org/BASIC\_CONFIGURATION\_README.html) ( for sending )
- » Dovecot (http://www.dovecot.org/) ( for receiving )
- » Squirrelmail (http://squirrelmail.org/) ( for webmail access ).

Here i have used mail.krizna.com for hostname and krizna.com for Domain . please replace with your domain .

# Setup mail server on ubuntu 14.04

- » Installing and configuring postfix
- » Installing and configuring dovecot
- » Installing and configuring squirrelmail

# » Installing and configuring postfix

Step 1 » Assign static IP and hostname and add a host entry for the host name .

Assign hostname in /etc/hostname

mail.krizna.com

## Add a hostentry in /etc/hosts

192.168.1.10 mail.krizna.com

## Step 2 » Update the repositories.

krizna@mail:~\$ sudo apt-get update

Step 3 » Install postfix and dependencies . Press enter for all prompted questions during installation. we will do that in the next step.

krizna@mail:~\$ sudo apt-get install postfix

## Step 4 » After installation issue the below command to configure postfix.

krizna@mail:~\$ sudo dpkg-reconfigure postfix

Now you will be prompted for set of details . choose the following values and replace krizna.com with your domain name.

- 1. Internet Site
- 2. krizna.com
- 3. krizna
- 4. krizna.com, localhost.localdomain, localhost
- 5. No
- 6. 127.0.0.0/8 [::ffff:127.0.0.0]/104 [::1]/128 192.168.0.0/24
- 7.0
- 8. +
- 9. all

Step 5 » Now configure Postfix for SMTP-AUTH using Dovecot SASL by adding the below lines to postfix config file /etc/postfix/main.cf .

```
home_mailbox = Maildir/
smtpd_sasl_type = dovecot
smtpd_sasl_path = private/auth
smtpd_sasl_local_domain =
smtpd_sasl_security_options = noanonymous
broken_sasl_auth_clients = yes
smtpd_sasl_auth_enable = yes
```

```
smtpd_recipient_restrictions = permit_sasl_authenticated,permit_mynetworks,reject_unauth_destination
smtp_tls_security_level = may
smtpd_tls_security_level = may
smtp_tls_note_starttls_offer = yes
smtpd_tls_loglevel = 1
smtpd_tls_received_header = yes
Step 6 » Now generate a digital certificate for tls. Issue the commands one by one and provide details as per your domain.
krizna@mail:~$ openssl genrsa -des3 -out server.key 2048
krizna@mail:~$ openssl rsa -in server.key -out server.key.insecure
krizna@mail:~$ mv server.key server.key.secure
krizna@mail:~$ mv server.key.insecure server.key
krizna@mail:~$ openssl req -new -key server.key -out server.csr
krizna@mail:~$ openssl x509 -req -days 365 -in server.csr -signkey server.key -out server.crt
krizna@mail:~$ sudo cp server.crt /etc/ssl/certs
krizna@mail:~$ sudo cp server.key /etc/ssl/private
Step 7 » Now configure certificate path
krizna@mail:~$ sudo postconf -e 'smtpd_tls_key_file = /etc/ssl/private/server.key'
krizna@mail:~$ sudo postconf -e 'smtpd_tls_cert_file = /etc/ssl/certs/server.crt'
Step 8 » Open /etc/postfix/master.cf file and uncomment below lines to enable smtps (465) and submission (587).
submission inet n
                                            smtpd
  -o syslog_name=postfix/submission
  -o smtpd_tls_security_level=encrypt
  -o smtpd_sasl_auth_enable=yes
  -o smtpd_relay_restrictions=permit_sasl_authenticated,reject
  -o milter_macro_daemon_name=ORIGINATING
 smtps inet n - n -
                                          smtnd
  -o syslog_name=postfix/smtps
  -o smtpd_tls_wrappermode=yes
  -o smtpd_sasl_auth_enable=yes
  -o smtpd_relay_restrictions=permit_sasl_authenticated,reject
  -o milter_macro_daemon_name=ORIGINATING
Step 9 » Now install Dovecot SASL by typing the below command.
krizna@mail:~$ sudo apt-get install dovecot-common
Issue the following values for the prompts during installation.
1. yes
2. mail.krizna.com
Step 10 » Make changes to the files as follows.
Open /etc/dovecot/conf.d/10-master.conf file and find # Postfix smtp-auth line (line no:95) and add the below lines.
# Postfix smtp-auth
unix_listener /var/spool/postfix/private/auth {
mode = 0660
user = postfix
group = postfix
Open /etc/dovecot/conf.d/10-auth.conf file and find (line no:100)
auth_mechanisms = plain
and replace
```

auth\_mechanisms = plain login

## Step 11 » Restart postfix and dovecot services

krizna@mail:~\$ sudo service postfix restart krizna@mail:~\$ sudo service dovecot restart

#### Step 12 » Now test SMTP-AUTH and smtp/pop3 port access .

## Type the below command and should get below response.

krizna@mail:~\$ telnet mail.krizna.com smtp

Trying 127.0.0.1...

Connected to localhost.

Escape character is '^]'.

220 mail.kriznaa.com ESMTP Postfix (Ubuntu)

now type ehlo mail.krizna.com and should get below response, please make sure you get those bolded lines.

ehlo mail.krizna.com

250-mail.krizna.com

\_\_\_\_

# 250-STARTTLS 250-AUTH PLAIN LOGIN 250-AUTH=PLAIN LOGIN

-----

250 DSN

and try the same with port 587 (telnet mail.krizna.com 587).

Postfix configuration is over, continue for dovecot installation.

## » Installing and configuring dovecot

#### Step 12 » Install dovecot using the below command

krizna@mail:~\$ sudo apt-get install dovecot-imapd dovecot-pop3d

## Step 13 » Now configure mailbox. Open /etc/dovecot/conf.d/10-mail.conf file and find (Line no:30)

mail\_location = mbox:~/mail:INBOX=/var/mail/%u

## Replace with

 $mail\_location = maildir: \sim / Maildir$ 

## Step 14 » Now change pop3\_uidl\_format . Open /etc/dovecot/conf.d/20-pop3.conf file and find and uncomment the below line ( Line no : 50 )

pop3\_uidl\_format = %08Xu%08Xv

## Step 15 » Now enable SSL . Open /etc/dovecot/conf.d/10-ssl.conf file and find and uncomment the below line ( Line no : 6 )

ssl = yes

#### Step 16 »Restart dovecot service.

krizna@mail:~\$ sudo service dovecot restart

## Step 17 » Now test pop3 and imap port access using the telnet command.

krizna@mail:~\$ telnet mail.krizna.com 110

Trying 127.0.0.1...

Connected to localhost.

Escape character is '^]'.

+OK Dovecot (Ubuntu) ready.

## Repeat the same for 995,993,143 ports.

#### OR check for listening ports using netstat command.

krizna@mail:~\$ netstat -nl4

you should get the result like below.



(http://cdn.krizna.com/wp-content/uploads/2014/05/setup-mail-server-ubuntu-14-04.png)

Step 18 » Create some users and check using mail clients like thunderbird or outlook

krizna@mail:~\$ sudo useradd -m bobby -s /sbin/nologin krizna@mail:~\$ sudo passwd bobby



(http://cdn.krizna.com/wp-content/uploads/2014/05/setup-mail-server-ubuntu-14-04-1.png)

Now mail server is ready, you can send and receive mail using the server. Continue for squirrelmail ..

# » Installing and configuring squirrelmail

Step 19 » Install squirrelmail using the below command. This will install apache and PHP packages.

krizna@mail:~\$ sudo apt-get install squirrelmail

## Step 20 » Configure squirrelmail

krizna@mail:~\$ sudo squirrelmail-configure

Everything is pre-configured , we just need to change Organization name .

» Press 1 (Organization Preferences) » again press 1 (Organization Name) » Organization Name » Press S » Press Q to quit Step 19 » Now configure apache to enable squirrelmail .

krizna@mail:~\$ sudo cp /etc/squirrelmail/apache.conf /etc/apache2/sites-available/squirrelmail.conf krizna@mail:~\$ sudo a2ensite squirrelmail

### Step 20 » Restart Apache service

krizna@mail:~\$ sudo service apache2 restart

Step 21 » Now open http://serverIP/squirrelmail in your browser and login using username (bobby) . you can send and receive mail using squirrelmail.

Okay .. its over now ..

Please note when you decide to move server to the production, it is very important to implement Spam filter and antivirus . please check this post for more detail Postfix spamfilter and antivirus implementation (https://help.ubuntu.com/community/PostfixAmavisNew)

#### Also see:

- » Setup mail server on centos 7 (http://www.krizna.com/centos/setup-mail-server-centos-7/)
- » Setup mail server on centos 6 (http://www.krizna.com/centos/setup-mail-server-in-centos-6/)



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/usr/sbin/postconf: warning: /etc/postfix/master.cf: undefined parameter: mua\_helo\_restrictions

/usr/sbin/postconf: warning: /etc/postfix/master.cf: undefined parameter: mua\_sender\_restrictions

/usr/sbin/postconf: warning: /etc/postfix/master.cf: undefined parameter: mua client restrictions

/usr/sbin/postconf: warning: /etc/postfix/master.cf: undefined parameter: mua\_helo\_restrictions

So how can i fix it? thanks. 2 ^ | V · Reply · Share >



Carlos • 3 years ago there two are missing:

250-AUTH PLAIN LOGIN 250-AUTH=PLAIN LOGIN what should I do 2 ^ | V • Reply • Share >



#### Matthew • a year ago

Hey Krizna, thanks for the tutorial! Easy to follow but I am having some issues. When I do the telnet mail.example.com 110 step, it connects to my static ip that I setup in /etc/hosts and tells me that I am connected but then it is closed by foreign host. I did netsat and the ports are listening, but when I went back into the dovecot config files and set "ssl = no" and commented the pop3\_uidl\_format back out. It works fine.

1 ^ | V • Reply • Share >



MD.Rakib Hossen • 2 years ago



Please help anybody

I can't receive mail from Gmail , yahoo , But i send mail yahoo, Gmail . But is go to spam

```
1 ^ V • Reply • Share >
```



DubbaThony → MD.Rakib Hossen • 8 months ago

change your dns records, so it contains text that you can grab directly from google for example.



Aaron Brooks • 2 years ago

What should be the output for the telnet with port 587? I dont have those bolded lines for 587. Is this okay?

```
1 ^ | V • Reply • Share >
```



Florian-Thomas Wickenburg • 2 years ago

I'm having a problem where my e-mails are not being received by dovecot.

Has anybody an idea for solve this problem?

```
1 ^ V • Reply • Share >
```



Italo Maia • 3 years ago

Lovely tutorial! Right now I'm having a problem where my e-mails are not being received by dovecot. They never make it to maildir. DNS seems fine. Is there a way to test if dovecot is really working?

```
1 ^ V • Reply • Share >
```



Adolfo Meneses → Italo Maia • 2 years ago

same here

1 ^ V • Reply • Share >



Hariharan Gopal → Italo Maia • 2 years ago

ya I am also facing the same problem

```
1 ^ V • Reply • Share >
```



Guest • 3 years ago

What is the expected output for ehlo in port 587? Which lines I'm looking for?

```
1 ^ V • Reply • Share >
```



MD.Rakib Hossen → Guest • 2 years ago

ehlo 587

250-RemittranceUk

250-PIPELINING

250-SIZE 10240000

250-VRFY

250-ETRN

250-STARTTLS

250-AUTH PLAIN LOGIN

250-AUTH=PLAIN LOGIN

250-ENHANCEDSTATUSCODES

250-8BITMIME

250 DSN



joe → MD.Rakib Hossen • 2 years ago

I'm not getting AUTH PLAIN LOGIN and AUTH=PLAIN LOGIN on port 587 but i am getting it on smtp

```
3 ^ V • Reply • Share >
```



mgr9500 → joe • 5 months ago

my recommendation to you is to remove the comment mark at the start of the line #submission



DubbaThony → joe • 8 months ago

same, figured it out?



A Shahin • 3 months ago

STARTTLS command required, how to solve this? it is giving error like this, how to solve this?

∧ V • Reply • Share >



mar9500 • 5 months ago



if you have this problem: MTP server response: 530 5.7.0 Must issue a STARTTLS command first then my recommendation to you is to remove the comment mark at the start of the line

#submission

good luck

@mgr9500



siantarcybercom • 8 months ago

on video ubuntu 16.10 with courier-pop courier-imap



geoB • 9 months ago

KUDOS! After trying postfix/dovecot documentation from Ubuntu & DigitalOcean over more days than I care to count, your tutorial is the one that worked. Great work.



19621205 • 10 months ago

I'm done but on the last part

krizna@mail:~\$ sudo a2ensite squirrelmail

it says 'Site squirrelmail does not exist'

Need your help Krizna.

Thanks.

\*\* issue already solved and I can be able to open the squirrelmail but I got

"Unknown user or password incorrect."

Is there any problem with the authentication? I simply followed the steps above. Please assist me. Thanks.



charles • a year ago

Best tutorial for setting up postfix and dovecot. I refer this page each and every time I setup a new server. Thanks a lot.



Marcelo Melo • a year ago

Obrigado, parabéns esse tutorial foi único que deu certo para configura Outlook recebe e enviar ...



bumeshrai • a year ago

Thank you! Superb article.

Everything went on as instructed. I have one query. After setting up the mail server, what values you enter in MX records of the domain hosting service.



sudarsun • a year ago

Amazing tutorial. Saved a lot of time for me. Thanks very much.



linuxlover • a year ago

Thanks a lot



Ted Collins • a year ago

AWESOME Post -- Thanks!!



Bala • a year ago

Hi Krizna, how to communicate with two different domains(Local) in postfix with dovecot like i want send and receive from xxx@tc.abc.in and yyy@local.xyz.in



kathir vel.m → Bala • a year ago

same i have dout

hwhite • a vear ann



works fine. thanks a lot.



Viet Le • a year ago

Great tutorial



guebre • a year ago

i have the error : error connecting to imap server: localhost. 111: connection refused





Andrew Saxton • a year ago

ERROR: Could not complete request.

Query: SELECT "INBOX"

Reason Given: [SERVERBUG] Internal error occurred. Refer to server log for more information. [2016-01-28 18:58:56]

everything else works in squirrelmail just inbox not working checked everything wice

any ideas please



Asep Dadan • a year ago

why my problem?

telnet: Unable to connect to remote host: Connection refused



naqash sattar • 2 years ago

ERROR: Connection dropped by IMAP server.

http://52.5.117.240/squirrelmail/src/redirect.php

getting this error on squirrelmail .. please helppppp

i am using amazon aws ec2 instance with ubuntu 14.04



Maxmah Technology • 2 years ago

The best tutorial I ever had online. Absolutely genius work Krizn. Many Many Thanks



MD.Rakib Hossen • 2 years ago

root@mail:~# netstat -tap

Active Internet connections (servers and established)

Proto Recv-Q Send-Q Local Address Foreign Address State PID/Program name

tcp 0 0 \*:ssh \*:\* LISTEN 880/sshd

tcp 0 0 \*:smtp \*:\* LISTEN 27536/master

tcp 0 0 \*:imaps \*:\* LISTEN 26864/dovecot

tcp 0 0 \*:pop3s \*:\* LISTEN 26864/dovecot

tcp 0 0 \*:mysql \*:\* LISTEN 977/mysqld

tcp 0 0 \*:submission \*:\* LISTEN 27536/master

tcp 0 0 \*:pop3 \*:\* LISTEN 26864/dovecot

tcp 0 0 \*:imap2 \*:\* LISTEN 26864/dovecot

tcp 0 0 \*:urd \*:\* LISTEN 27536/master

tcp 0 464 mail.remittanceuk.c:ssh 103.41.213.170:50156 ESTABLISHED 4997/0

tcp 0 1691 mail.remittanceuk.c:ssh 222.186.21.208:4956 ESTABLISHED 6745/sshd: [accepte

tcp6 0 0 [::]:ssh [::]:\* LISTEN 880/sshd

tcp6 0 0 [::]:smtp [::]:\* LISTEN 27536/master

tcp6 0 0 [::]:imaps [::]:\* LISTEN 26864/dovecot

tcp6 0 0 [::]:pop3s [::]:\* LISTEN 26864/dovecot

tcp6 0 0 [::]:submission [::]:\* LISTEN 27536/master

tcp6 0 0 [::]:pop3 [::]:\* LISTEN 26864/dovecot

tcp6 0 0 [::]:imap2 [::]:\* LISTEN 26864/dovecot

tcp6 0 0 [::]:http [::]:\* LISTEN 26842/apache2

tcp6 0 0 [::]:urd [::]:\* LISTEN 27536/master



MD.Rakib Hossen • 2 years ago

I can't receive mail from  $\mathsf{Gmail}$  , yahoo ,  $\mathsf{But}\:\mathsf{i}\:\mathsf{send}\:\mathsf{mail}\:\mathsf{yahoo}, \mathsf{Gmail}\:\mathsf{.}\:\mathsf{But}\:\mathsf{is}\:\mathsf{go}\:\mathsf{to}\:\mathsf{spam}\:$ 



XiaoGuang Wang → MD.Rakib Hossen • 10 months ago

You probably also wrongly did step-13 where mail\_location is set to mbox:~/Maildir instead of maildir:~/Maildir. As mentioned in Lion's post.



Lion • 2 years ago

Thanks for the tutorial.

Finally it works in Ubuntu 15 but it took me 2 days to figure out an issue where the incoming email is not available in POP nor IMAP although from the log seen that the SMTP nicely accept the email. I wrongly do step-13 where mail\_location is set to mbox:~/Maildir instead of maildir:~/Maildir.



XiaoGuang Wang → Lion • 10 months ago

That is exactly the problem what I had. Thank you for letting us know this tiny but important difference.



PD • 2 years ago

Oh crap! It seems most of all posted "Squirrel works" Uhmm, I have done everything no errors, but may I ask, how do I know what is my "URL" for squirrelmail?

"http://serverIP/squirrelmail" don't work for me :3 HELP PLS



#### Mayank Gupta • 2 years ago

Excellent tutorial! I did everything. The squirrel mail is up. I can login but the messages I send are going nowhere. I created an email id as bobby@subdomain.com and I tried sending mail to itself, to gmail - nothing seems to be working. What did I miss?



MN • 2 years ago

Really Great guidance......Thanks for it.......Can i send mail from gmail to the server i made and vice versa............If yes......please tell how?

| V • Reply • Share >



MN • 2 years ago

My server is configured and i am able to send and receive mail using squirrelmail but when i try to send and receive mails through thunderbird from other PC in network it doesn't find the server although it is in the same network and i am able to ping the server ip also......pls guide



omsi ightharpoonup MN  $\circ$  a year ago

Check if both computers are in the same domain or workgroup



Yutthaphum Sriwino • 2 years ago

Thank. It's work. Very good.

^ | ✓ • Reply • Share ›



Captain • 2 years ago

Great post, everything worked perfectly for me... Thank you very much and i will keep visiting your site for different installs



webs • 2 years ago

help i can't login, what i get is ERROR:

ERROR: Connection dropped by IMAP server.



Nian Ying Toh • 2 years ago

unable to telnet to mail server at step17 above need help

^ V • Reply • Share >

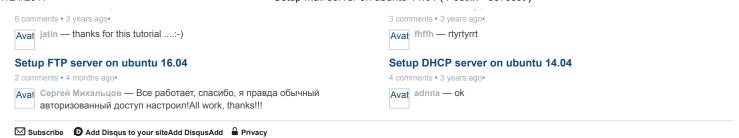


Anthony Brown • 2 years ago

I had a problem receving email with squirrelmail. I resolved this by running the /etc/squirrelmail/conf.pl script. Select 2.Server Settings, then A. Update IMAP Settings 8. Server Software = dovecot. When I installed it was set to other instead of dovecot.

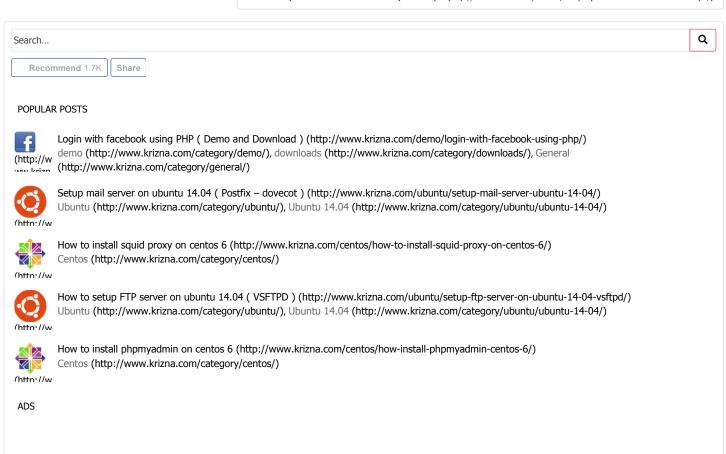
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