This tutorial explains how to setup mail server using postfix,dovecot and squirrelmail.
» **Postfix** (for sending)
» **Dovecot** (for receiving)
» **Squirrelmail** (for webmail access).

Here we have used groupN.apnictraining.net for hostname and groupxx.com.bd for Domain . Please replace with your domain .

» 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**

```
groupN.apnictraining.net

#hostname groupN.apnictraining.net
```

Add a host entry in **/etc/hosts**

```
192.168.1XX.1 groupN.apnictraining.net
```

Step 2 » Update the repositories.

```
$ 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.

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

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

```
$ sudo dpkg-reconfigure postfix
```

Now you will be prompted for set of details . choose the following values and replace groupxx.com.bd with your domain name.
1. Internet Site
2. groupxx.com.bd
3. mail
4. groupxx.com.bd, localhost.localdomain, localhost

5. No
6. 127.0.0.0/8 [::ffff:127.0.0.0]/104 [::1]/128 192.168.0.0/16
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.

```
$ openssl genrsa -des3 -out server.key 2048
$ openssl rsa -in server.key -out server.key.insecure
$ mv server.key server.key.secure
$ mv server.key.insecure server.key
$ openssl req -new -key server.key -out server.csr
$ openssl x509 -req -days 365 -in server.csr -signkey
server.key -out server.crt
$ sudo cp server.crt /etc/ssl/certs
$ sudo cp server.key /etc/ssl/private
```

Step 7 » Now configure certificate path

```
$ sudo postconf -e 'smtpd_tls_key_file = /etc/ssl/private/
server.key'
$ 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_authentic
ated,reject
  -o milter_macro_daemon_name=ORIGINATING
smtps     inet  n       -       n       -
-       smtpd
  -o syslog_name=postfix/smtps
  -o smtpd_tls_wrappermode=yes
  -o smtpd_sasl_auth_enable=yes
  -o
smtpd_relay_restrictions=permit_sasl_authentic
ated,reject
  -o milter_macro_daemon_name=ORIGINATING
```

Step 9 » Now install Dovecot SASL by typing the below command.

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

Issue the following values for the prompts during installation.

1. yes
2. groupN.apnictraining.net

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

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

Step 12 » Now test SMTP-AUTH and smtp/pop3 port access . Type the below command and should get below response.

```
$ telnet groupN.apnictraining.net smtp
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
220 mail.kriznaa.com ESMTP Postfix (Ubuntu)
```

now type **ehlo groupN.apnictraining.net** and should get below response , please make sure you get those bolded lines .

```
ehlo groupN.apnictraining.net
250-groupN.apnictraining.net
--------
250-STARTTLS
250-AUTH PLAIN LOGIN
250-AUTH=PLAIN LOGIN
---------
250 DSN
```

and try the same with port 587 (telnet groupN.apnictraining.net 587).

Postfix configuration is over, continue for dovecot installation.

» Installing and configuring dovecot

Step 12 » Install dovecot using the below command

```
$ 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:~/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.

```
$ sudo service dovecot restart
```

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

```
$ telnet groupN.apnictraining.net 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 .

```
$ netstat -nl4
```

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

```
$ sudo useradd -m bdnog6 -s /sbin/nologin
$ sudo passwd bdnog6
```