

Handbook of instructions for configuring Dovecot

In the handbook examples, we will assume that you have a bakery named CheezeKake and are configuring a self-hosted email service for its domain cheezekake.com, with email addresses of the form @cheezekake.com.

We are assuming that you have an Ubuntu machine with the IP address 20.227.211.113, where you have installed MySQL and Postfix.

1. Install the basic tools for DKIM.

```
sudo apt install opendkim opendkim-tools
```

2. Inside the /etc/, create the hierarchy of directories dkimkeys/cheezekake.com.

```
sudo mkdir -p /etc/dkimkeys/cheezekake.com
```

3. Generate the DKIM private-public key pair inside the above directory.

```
sudo opendkim-genkey
  \ -b 2048
  \ -d cheezekake.com
  \ -s email
  \ -v
  \ --directory=/etc/dkimkeys/cheezekake.com
```

where -b is the size of the keys generated in bits. 1024 and 2048 are supported.

-d is the domain name for which the DKIM keys must be generated.

-s is the file name of the keys that is generated. The files will be email.txt and email.private. It is also referred to as a selector.

-v prints out a commentary of the generation process.

--directory is the location where the generated keys should be stored.

4. The private and public keys should belong to a user named opendkim and group opendkim.

```
sudo chown -R opendkim:opendkim /etc/dkimkeys/cheezekake.com/email.{txt,private}
```

5. Create a new DNS record on your domain provider's dashboard. Refer to the contents of the file /etc/dkimkeys/cheezekake.com/email.txt

Record Type: TXT

Domain name: email._domainkey

where the hostname should be of the form <selector>._domainkey.

Value: From email.txt, copy the entire string that starts with v=DKIM1.

TTL: 1/2 hour or 1 hour

6. Verify that the above DNS record is active. It may take upto 30 minutes for the record to show up on the rest of Internet.

```
opendkim-testkey -d cheezekake.com -s email -vvv
```

The command should return a line that says 'key OK'.

7. Make the following changes to the file /etc/opendkim.conf

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Add the following lines

```
Domain      cheezekake.com
KeyFile     /etc/dkimkeys/cheezekake.com/email.private
Selector    email
```

8. Create a new directory named /var/spool/postfix/dkim

```
sudo mkdir -p /var/spool/postfix/dkim
```

9. The directory should belong to user opendkim and group postfix.

```
sudo chown -R opendkim:postfix /var/spool/postfix/dkim
```

10. In the file /etc/opendkim.conf, make the following changes.

```
Socket      local:/var/spool/postfix/dkim/dkim.sock
```

11. Add the postfix user to the opendkim group

```
sudo gpasswd --add postfix opendkim
```

12. Add / modify the following lines in /etc/postfix/main.cf after smtpd_relay_restrictions line.

```
mtller_default_action = accept
mtller_protocol = 6
smtpd_milters = local:dkim/dkim.sock
non_smtpd_milters = $smtpd_milters
```

13. Restart both OpenDKIM and Postfix services.

```
sudo systemctl restart opendkim postfix
```

14. Send a new email using your email server to your GMail.

15. In the received mail in GMail, the DKIM headers should show 'PASS'.