

# Scaling Dovecot using Mysql and Virtual Users

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# Overview

- This presentation will provide a step by step option on how to configure Dovecot to authenticate virtual users from a Mysql Database
- Configure the MTA to deliver to the virtual users stored in the Mysql Database

# Dovecot Configuration

- All Dovecot configuration files are stored in  
/usr/local/etc/dovecot/  
/usr/local/etc/dovecot/conf.d/

# Config files to Open and Edit

## 1. Authentication & Mysql Setup

../dovecot/conf.d/10-auth.conf

../dovecot/conf.d/auth-sql.conf.ext

../dovecot/dovecot-sql.conf

## 2. Mailbox location and Addresses

../dovecot/conf.d/10-mail.conf

../dovecot/conf.d/15-lda.conf

../dovecot/conf.d/

# ../dovecot/conf.d/10-auth.conf

- **Edit the following lines to match below;**

```
disable_plaintext_auth = no
```

```
auth_default_realm = xxx.sse.ws.afnog.org
```

```
auth_mechanisms = plain login
```

- **Comment the auth-system.conf.ext**

```
#!include auth-system.conf.ext
```

- **Uncomment the auth-sql.conf.ext**

```
!include auth-sql.conf.ext
```

../dovecot/conf.d/auth-sql.conf.ext

- **Fix the passdb path for sql config file to;**  
args = /usr/local/etc/dovecot/dovecot-sql.conf
- **Fix the userdb path for sql config file to;**  
args = /usr/local/etc/dovecot/dovecot-sql.conf

# ../dovecot/dovecot-sql.conf

- The file `/usr/local/etc/dovecot/dovecot-sql.conf.ext` is provided.
- Copy the example file to the expected `.conf` file.
  - `cd /usr/local/etc/dovecot/`
  - `cp dovecot-sql.conf.ext dovecot-sql.conf`

# ../dovecot/dovecot-sql.conf

- **Define the Driver**

driver = mysql

- **Mysql Connection details**

connect = host=127.0.0.1 dbname=dovecot user=root password=afnog

- **Find and set the default password scheme**

default\_pass\_scheme = MD5

- **Uncomment and modify password query (red values change)**

password\_query = SELECT userid AS user, password AS \ password  
FROM users WHERE userid = '%n' AND active = 'Y'

- **Uncomment and modify user query**

user\_query = SELECT home, uid, gid FROM users WHERE userid = '%n'



# ../dovecot/conf.d/10-mail.conf

- **Find and Change the Mail Location to;**

```
mail_location = maildir:/home/vmail/%d/%n
```

- **Uncomment and Fix the Directory path where to find mail plugins**

```
mail_plugin_dir = /usr/local/lib/dovecot
```

# ../dovecot/conf.d/15-lda.conf

- **Add the following values in bold**
  - *postmaster\_address* = **valid.email@address**

# Creating Dovecot's Mysql DB

- Having configured dovecot to use Mysql, we need to setup create the database in Mysql and populate the database with a user information
- We have provided for a basic sql schema that will be used in this class and placed it at /home/afnog/dovecot-mysql-schema.sql
- Change directory to /home/afnog

```
cd /home/afnog
```
- Check to see that the file exists in the directory

```
ls
```
- Run the schema in mysql to create the database

```
mysql -p <dovecot-mysql-schema.sql
```
- Enter the mysql password on the prompt

## ...Cont'd

- *Create a user that will manage the virtual users*

```
pw adduser vmail -m
```

- check the the UID of the vmail user and take note of it for the next steps

```
cat /etc/passwd | grep vmail
```

# Inserting records in Mysql DB

- The database created by the dovecot-mysql-schema.sql is empty
- To populate data on the mysql database there are two options;
  - i) Manually from the mysql CLI
  - ii) Using Web/GUI like PHPMyAdmin
- For this class we shall use the mysql CLI to get more hands on experience
- **Replace UID and GID below with the “vmail” UID/GID for example GID is ‘1002’**
- **Xxxx.bogus.gh** is the domain created in the **DNS class**.
  
- *Important Replace UID and GID below with that of vmail user*
  
- `#mysql -p`
  
- `Mysql> use dovecot;`
  
- `Mysql> insert into users (userid, domain, password, home, uid, gid) values ('afnog', 'xxxx.bogus.gh', md5('success'), '/home/vmail/%d/%n', 'UID', 'GID');`
  
- `Mysql> insert into users (userid, domain, password, home, uid, gid) values ('yourname', 'xxxx.bogus.gh', md5('2013'), '/home/vmail/%d/%n', 'UID', 'GID');`

# Exim Delivery to Virtual Users using Dovecot Delivery

# Exim Email Accepting

- Open and Edit `/usr/local/etc/exim/configure`
- `# vi /usr/local/etc/exim/configure`
- Add the Mysql database access config line below `primary_hostname`
- `hide mysql_servers = localhost/dovecot/root/afnog`
- Then Add a localuser Router the following lines in the “Routers Section”

```
dovecot_router:  
driver = accept  
condition = ${lookup mysql {SELECT home FROM users WHERE  
userid='$local_part'}}  
transport = dovecot_delivery
```

# Exim Delivery to Dovecot

- Add local\_delivery with the following lines under the transport section in the configure file.

```
dovecot_delivery:  
driver = pipe  
command = /usr/local/libexec/dovecot/deliver  
message_prefix =  
message_suffix =  
delivery_date_add  
envelope_to_add  
return_path_add  
log_output  
user = vmail  
temp_errors = 64 : 69 : 70 : 71 : 72 : 73 : 74 : 75 : 78
```



# Restart Exim & Dovecot

- Restart both Exim and Dovecot
- `# /usr/local/etc/rc.d/exim restart`
- `# /usr/local/etc/rc.d/dovecot restart`
  
- ***Send email tests and watch the logfiles.***
- ***Try and log in using the virtual user names and passwords.***