

Administrasi dan Manajemen Jaringan

5. Mail Server

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Lab Jaringan Komputer (C-307)

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Mail Server

- Debian installs the Exim mail server software by default when you do even a basic installation.
- Two server services involved with a mail server.
 - MTA (Mail Transport Agent) that is responsible for exchanging mail with other mail servers and forwarding mail that is being *sent* by clients.
 - The service which allows POP clients to log in and retrieve their mail from the server.

The mail messages are transferred from the user's "mailbox" (a file) on the server to their "inbox" (a file) on the user's local hard-drive.

Terminology

■ **MTA - Mail Transport Agent:**

- ❑ The server-based application that routes mail from MUAs (clients) to other MTAs and accepts mail from other MTAs.
- ❑ Postfix is the most popular MTA. Sendmail, Exim and Microsoft Exchange are others.
- ❑ MTAs use the SMTP protocol to accept and route mail from MUAs and to send/receive messages to/from other MTAs

■ **MUA - Mail User Agent:**

- ❑ This is the nerd term for the e-mail reader client software run on most PCs.
- ❑ Common MUAs are pine and elm (UNIX/Linux), Netscape Communicator, Eudora, and Microsoft Outlook (Windows).
- ❑ They use the SMTP protocol to send messages and the POP protocol to retrieve messages.

■ **SMTP - Simple Mail Transport Protocol:**

- ❑ Protocol is a set of rules that you have to follow.
- ❑ With SMTP (and many other communications protocols) the rules are the commands and their syntax.
- ❑ The SMTP protocol is a set of commands used to communicate with/between MTAs. SMTP listens on port 25.

■ **POP - Post Office Protocol:**

- ❑ A message retrieval protocol (commands) used to communicate with a POP service running on a mail server.
- ❑ The most commonly-used versions are POP2 and POP3.
- ❑ **popd** is one of the most common POP daemons run on mail servers.
- ❑ An MUA uses POP commands to communicate with the POP service (daemon) to retrieve any messages stored in a mailbox file.
- ❑ IMAP (Internet Message Access Protocol) is another common message retrieval protocol. POP listens on port 110.

Mail server setup

Postfix:

- An attempt to provide an alternative to the widely-used Sendmail program. Postfix attempts to be fast, easy to administer, and hopefully secure.

Dovecot:

- An open source IMAP and POP3 server for Linux/UNIX-like systems.
- It's fast, simple to set up, requires no special administration and it uses very little memory.

SASL + TLS:

- SASL + TLS (Simple authentication security layer with transport layer security) used mainly to authenticate users before sending email to external server, thus restricting relay access.
- If your relay server is kept open, then spammers could use your mail server to send spam.
- It is very essential to protect your mail server from misuse.

SquirrelMail:

- A standards-based webmail package written in PHP. It includes built-in pure PHP support for the IMAP and SMTP protocols.
- It has all the functionality as email client, including strong MIME support, address books, and folder manipulation.

Install Postfix MTA (Mail Transfer Agent)

- Install Postfix:

`aptitude install postfix postfix-tls libsasl2 sasl2-bin libsasl2-modules popa3d`

- Postfix configuration file is located at: `/etc/postfix/main.cf`.
- Restart Postfix Server using the following command
`/etc/init.d/postfix restart`

Install Dovecot

- Dovecot is POP3/IMAP server which needs MTA like Postfix to work properly.
`aptitude install dovecot-imapd dovecot-pop3d dovecot-common`
- Dovecot configuration file is located at: `/etc/dovecot/dovecot.conf`
- Edit the dovecot configuration file using the following command
`vim /etc/dovecot/dovecot.conf`
specify protocols = imap imaps pop3 pop3s
protocols = pop3 imap
uncomment this and change to no.
disable_plaintext_auth = no
pop3_uidl_format = %08Xu%08Xv

- Create a user to test our pop3 mail with outlook:
`adduser user_name`
- Restart Dovecot using the following command:
`/etc/init.d/dovecot restart`

Configure SASL Authentication with TLS

- Let set up SMTP authentication for our users with postfix and dovecot.
- Edit the postfix configuration file </etc/postfix/main.cf> and enter these lines to enable authentication of users.
smtpd_sasl_auth_enable = yes
smtpd_sasl_local_domain = yourdomain.com
smtpd_recipient_restrictions =
permit_mynetworks,permit_sasl_authenticated,reject_unauth_destination
smtpd_sasl_security_options = noanonymous

- Postfix does a chroot so it can't communicate with saslauthd.

```
rm -r /var/run/saslauthd/
```

```
mkdir -p /var/spool/postfix/var/run/saslauthd
```

```
ln -s /var/spool/postfix/var/run/saslauthd /var/run
```

```
chgrp sasl /var/spool/postfix/var/run/saslauthd
```

```
adduser postfix sasl
```

- Edit dovecot conf file, and insert the lines below.
- Vim /etc/dovecot/dovecot.conf

```
auth default {  
  mechanisms = plain login  
  passdb pam {  
  }  
  userdb passwd {  
  }  
  socket listen {  
    client {  
      path = /var/spool/postfix/private/auth  
      mode = 0660  
      user = postfix  
      group = postfix  
    }  
  }  
}
```

- Rename previous auth default to auth default2.

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- Restart all the following components of mail server:

`/etc/init.d/saslauthd restart`

`/etc/init.d/postfix restart`

`/etc/init.d/dovecot restart`

Installing Squirrel Web Mail

- Before installing Squirrel Web Mail you need to make sure you have installed apache2 with php support

`aptitude install apache2`

`aptitude install libapache2-mod-php5 php5-cli php5-common php5-cgi`

`aptitude install squirrelmail`

- Squirrelmail configuration file is located in: `/etc/squirrelmail/`

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- Run squirrelmail configuration utility as ROOT
[/usr/sbin/squirrelmail-configure](#)
 - Edit apache configuration file `/etc/apache2/apache2.conf` and insert the following line
[Include /etc/squirrelmail/apache.conf](#)
 - Restart the webserver using the following command
[/etc/init.d/apache2 restart](#)
 - Access your webmail using the following link
[http://yourdomain or server ip/squirrelmail](#)

Mail Server Logs

- Identify what the problem before troubleshoot refer to logs located in [/var/log/mail.log](#)

References - Credit

- Harnal, “Linux Applications And Administration”.
- <http://www.aboutdebian.com>
- <http://www.debianadmin.com>

Finish

