

# Minggu 13

## Mail Server

# Overview

- Mail Server
- Penerimaan Mail : MX Record
- Kerja Sendmail
- Konfigurasi Sendmail
- Fitur Sendmail
- Konfigurasi Server dan Client
- POP Server
- IMAP Server

# Mail Server Overview

- Mail Server memberikan layanan kepada pengguna internet berupa layanan email
- Proses
  - User mengirim message
  - Pertama kali message dikirim dari host user menuju ke mail server
  - Mail server mengirim message ke mail server yang lain di internet dimana penerima berada
  - Mail server penerima kemudian mengirimkan pesan ke sistem host penerima

# Mail Server Overview lanjutan

- Pada masing-masing tahapan ada perbedaan tipe operasi dengan menggunakan agent yang berbeda
- 3 Macam agent
  - MUA  
Mail client yang digunakan user untuk mengirim email ke user lain
  - MTA  
Mail server yang menggunakan SMTP untuk mengirimkan pesan dari satu mail server ke mail server yang lain
  - MDA  
Mengambil pesan yang diterima oleh mail server dan mengirimkannya ke user account

# Penerimaan Mail : MX Record

- Sebuah mail address berisi (contoh : agus@yahoo.com)
  - Username : agus
  - Host address (FQDN) : yahoo.com
- Mail server dihubungkan dengan host yang berbeda-beda oleh record MX (mail exchange), dalam konfigurasi DNS
- Sebuah host dapat memiliki bermacam-macam mail exchange dengan perbedaan prioritas

# Bagaimana Sendmail Bekerja

- Sendmail beroperasi sebagai sebuah server untuk menerima dan mengirim email
- DNS server menentukan host dari domain yang digunakan
  - Secara khusus menggunakan masukan MX
  - Pesan akan dikirim ke host ini
  - Server sendmail akan mengirim message ke user dan host yang benar

# Bagaimana Sendmail Bekerja

- Sendmail mengatur semua konfigurasi dan database file di /etc/mail
- Masing-masing konfigurasi mempunyai versi text dan database yang biasanya digunakan untuk versi sendmail
- Versi database dibuat menggunakan pilihan makemap hash dan operasi redirection untuk text dan database
  - `cd /etc/mail`
  - `Makemap hash access < access`

# Konfigurasi Sendmail

- File konfigurasi utama sendmail -> /etc/mail/sendmail.cf
- Definisi dari sendmail bisa sangat kompleks dan membingungkan
  - Definisi design dan fitur ada di file /etc/mail/sendmail.mc
  - Untuk membuat file sendmail.cf yang baru dengan menggunakan m4 preprocessor

```
#m4 sendmail.mc > /etc/mail/sendmail.cf
```
  - # service sendmail restart



# Fitur Sendmail

## 3 Fitur Penting :

- Aliases
- Sendmail Masquerading
- Security

# Aliases

- Meng-enable Sendmail terhadap host-host dalam jaringan yang hanya menggunakan alamat alias
- aliases.db berisi nama dan gabungan alamat email address
  - Masukan alias disimpan di file /etc/aliases
  - Edit file ini tambahkan entrian baru atau ubah yang lama
  - Simpan informasinya dengan menggunakan perintah **newaliases**
- Contoh
  - testing : [agus@yahoo.com](mailto:agus@yahoo.com)
  - murid :agus, budi

# Sendmail Masquerading

- Membuat message dikirim oleh local host kemudian dikirim oleh mail server
- Masquerading sering kali digunakan untuk melindungi localhost dengan sebuah domain
  - Pesan dari host-host dalam pens.ac.id : mail1.test.ac.id dan mail2.test.ac.id bisa dianggap datang dari test.ac.id
- Masquerading dihidupkan dengan perintah MASQUERADE\_AS
- Semua message yang diterima akan terhapus dari mail server

# Contoh Masquerading Sendmail

- Untuk me-masquerade test.ac.id
  - MASQUERADE\_AS('test.ac.id')dnl
- Untuk me-masquerade semua host dalam local network
  - FEATURE('masquerade\_entire\_domain')dnl
- Untuk me-masquerade bagian host atau domain
  - MASQUERADE\_DOMAIN('mail.test.ac.id')dnl

# Contoh Sendmail Masquerading

- Tentukan domain/host list dalam sebuah file
  - **MASQUERADE\_DOMAIN\_FILE('mydomains') dn1**
- Masquerade sebagai sebuah ISP mail domain
  - **MASQUERADE\_AS('isp.com') dn1**
  - **MASQUERADE\_DOMAIN('test.ac.id') dn1**
- Penerima (Recipient) masquerading
  - **FEATURE(allmasquerade) dn1**
  - Mail yang dikirim user dalam local host akan dikirim ke alamat yang di-masquerading

# Konfigurasi Server dan Client

- Sendmail dapat digunakan sebagai sebuah :
  - Mail server- menangani email dari berbagai macam host dalam satu jaringan
  - Mail client- mengatur email untuk user local dalam host-host di jaringan
- 3 konfigurasi umum Sendmail
  - Konfigurasi sendmail sebagai konfigurasi simple network
  - Konfigurasi sendmail sebagai sentralisasi Mail server
  - Konfigurasi sendmail sebagai station dengan koneksi ISP langsung

# Konfigurasi Sendmail Sederhana

- Kasus
  - Menggunakan Sendmail untuk mengirim message ke host lain dalam satu jaringan
  - [agus@test1.ac.id](mailto:agus@test1.ac.id) ke [budi@test2.ac.id](mailto:budi@test2.ac.id)
- Tahapan
  - Jalankan server sendmail masing-masing host
  - Pilih salah host untuk menjadi Message Relaying
  - Edit dan ubah file sendmail.mc

# Konfigurasi Sendmail Sebagai Central Mail Server

- Kasus
  - Mail client dapat mengirimkan message mereka ke pusat Mail server
  - Mail dapat diterima oleh mail server
- Tahapan
  - Buat pusat mail server berjalan di gateway
  - Masing-masing client jalankan sendmail sebagai client
  - Masquerade semua mail yang hanya menggunakan domain address bukan host address
  - Enable POP atau IMAP untuk berjalan di server pada host gateway tadi



# Konfigurasi Langsung Workstation dengan ISP

- Kasus
  - Sebuah linux yang bukan bagian jaringan tapi punya koneksi langsung dari sebuah ISP internet
  - Menggunakan mail server ISP untuk mengirim dan menerima email
- Tahapan
  - Berikan **DAEMON\_OPTIONS** option

```
dn1 DAEMON_OPTIONS ('Port=smtp,Addr=127.0.0.1,Name=MTA') dn1
```
  - Gunakan mail server ISP dengan pilihan **SMART\_HOST**

```
define ('SMART_HOST', 'smtp:mail.my-isp.com') dn1
```

# POP Server

- Protokol POP menangani mail sampai user mengakses account mereka di POP server
- Ketika user mengakses message mereka dari komputer manapun
- Macam-macam POP server
  - Courier-pop
  - Qpopper

# POP Server

- Server daemon disebut **ipop2d** dan **ipop3d**
  - POP3 server menggunakan **ipop3** file dalam **/etc/xinetd.c**
  - Jalankan di server menggunakan **chkconfig**  
**# chkconfig ipop3 on**
- Untuk menambah user tambahkan cara tambah standar POP3 server
  - Tidak perlu mensetup sebuah home direktori

# IMAP Server

- Keuntungan IMAP server
  - Menyimpan
- IMAP Server produksi Universitas Washington disebut **imapd**
  - Menggunakan file imap di **/etc/xinet.d**
  - Cara menjalankan dengan **chkconfig****#chkconfig imap on:**

# Kesimpulan

- Modul ini kita telah belajar tentang
  - Over view mail server
  - Penerimaan Mail : MX record
  - Bagaimana Sendmail bekerja
  - Konfigurasi sendmail
  - Fitur sendmail
  - Konfigurasi server dan client
  - POP server
  - IMAP server

# Latihan Soal

1. Sebutkan langkah-langkah instalasi MTA lain dalam hal ini Postfix.
2. Sebutkan file konfigurasi dari Postfix dan sebutkan fitur yang terkandung didalamnya !
3. Sebutkan arti dari virtual user dan virtual host !
4. Tunjukkan bagaimana pembuatan virtual user dan virtual host
5. Sebutkan aplikasi mailing list yang ada

# Praktikum Admin Jaringan

### Advanced TCP/IP Settings

IP Settings | **DNS** | WINS

DNS server addresses, in order of use:

- 10.252.44.183
- 202.9.85.3
- 202.9.85.4

Buttons: Add... Edit... Remove

The following three settings are applied to all connections with TCP/IP enabled. For resolution of unqualified names:

- Append primary and connection specific DNS suffixes
  - Append parent suffixes of the primary DNS suffix
- Append these DNS suffixes (in order):

Buttons: Add... Edit... Remove

DNS suffix for this connection: \_\_\_\_\_

- Register this connection's addresses in DNS
- Use this connection's DNS suffix in DNS registration

Buttons: OK Cancel

### Wireless Network Connection Properties

Networking | Sharing

### Internet Protocol Version 4 (TCP/IPv4) Properties

General | **Alternate Configuration**

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

- Obtain an IP address automatically
- Use the following IP address:
  - IP address: . . .
  - Subnet mask: . . .
  - Default gateway: . . .
- Obtain DNS server address automatically
- Use the following DNS server addresses:
  - Preferred DNS server: . . .
  - Alternate DNS server: . . .

Validate settings upon exit

Buttons: OK Cancel Advanced...




### Wireless Network Connection Status

General


Connection

IPv4 Connectivity: Internet  
IPv6 Connectivity: No network access  
Media State: Enabled  
SSID: BC128  
Duration: 10 days 13:48:22  
Speed: 150.0 Mbps

Signal Quality: 

Details... Wireless Properties

Activity

Sent —  Received

Bytes: 141,095,129 | 400,568,026

Properties Disable Diagnose

Close

### Network Connection Details

Network Connection Details:

Property	Value
Connection-specific DN...	eepis-its.edu
Description	Atheros AR9285 Wireless Network Ac
Physical Address	1C-4B-D6-A8-25-FF
DHCP Enabled	Yes
IPv4 Address	10.252.44.112
IPv4 Subnet Mask	255.255.255.0
Lease Obtained	Tuesday, October 25, 2011 6:07:16 A
Lease Expires	Tuesday, October 25, 2011 7:47:29 A
IPv4 Default Gateway	10.252.44.1
IPv4 DHCP Server	202.9.85.3
IPv4 DNS Servers	10.252.44.183 202.9.85.3 202.9.85.4
IPv4 WINS Server	
NetBIOS over Tcpi... En...	Yes
Link-local IPv6 Address	fe80::7914:b78d:3975:8ef0%11

Close

```
root@ubuntu: /etc/bind

// prime the server with knowledge of the root servers
zone "." {
    type hint;
    file "/etc/bind/db.root";
};

// be authoritative for the localhost forward lookup zone
// broadcast zones as per RFC 1912

zone "localhost" {
    type master;
    file "/etc/bind/db.local";
};

zone "127.in-addr.arpa" {
    type master;
    file "/etc/bind/db.127";
};

zone "0.in-addr.arpa" {
    type master;
    file "/etc/bind/db.0";
};

zone "255.in-addr.arpa" {
    type master;
    file "/etc/bind/db.255";
};

include "/etc/bind/named.conf.local";
root@ubuntu:/etc/bind#
```

```
root@ubuntu: /etc/bind

//
// Consider adding the 1918 zones here, if they are not used in your
// organization
//include "/etc/bind/zones.rfc1918";

//di lab Comvis
zone "training.com" IN {
    type master;
    file "/var/cache/bind/db.training3";
};

zone "44.252.10.in-addr.arpa" IN {
    type master;
    file "/var/cache/bind/db.183";
};

//di lab jarkom 10.252.108.69
//zone "training.com" IN {
//type master;
```

```
root@ubuntu: /var/cache/bind

root@ubuntu:/etc/bind# cd /var/cache/bind/
root@ubuntu:/var/cache/bind# ls
db.179 db.231 db.69 db.training db.training2
db.183 db.244 db.72 db.training1 db.training3
root@ubuntu:/var/cache/bind#
```

```
root@ubuntu: /var/cache/bind
; BIND reverse data file for local loopback interface
;
$TTL      604800
@         IN      SOA      training.com. root.training.com. (
                        1          ; Serial
                        604800     ; Refresh
                        86400      ; Retry
                        2419200    ; Expire
                        604800 )   ; Negative Cache TTL
;
@         IN      NS       ns1.training.com.
@         IN      MX       10      mail.training.com.
www       IN      A        10.252.44.183
mail      IN      A        10.252.44.183
milis     IN      A        10.252.44.183

root@ubuntu:/var/cache/bind# cat db.training3
```

```
root@ubuntu: /var/cache/bind
; BIND reverse data file for local loopback interface
;
$TTL      604800
@         IN      SOA      training.com. root.training.com. (
                        1          ; Serial
                        604800     ; Refresh
                        86400      ; Retry
                        2419200    ; Expire
                        604800 )   ; Negative Cache TTL
;
@         IN      NS       ns1.training.com.
183      IN      PTR      ns1.training.com.
183      IN      PTR      www.training.com.
183      IN      PTR      mail.training.com.
183      IN      PTR      milis.training.com.

root@ubuntu:/var/cache/bind# cat db.183
```

```
root@ubuntu: /var/cache/bind
root@ubuntu:/var/cache/bind# cp /etc/resolv.conf /etc/resolv.conf.edit
root@ubuntu:/var/cache/bind#
root@ubuntu:/var/cache/bind# cat /etc/resolv.conf
nameserver 10.252.44.183
nameserver 202.9.85.3
nameserver 202.9.85.4
domain eepis-its.edu
search eepis-its.edu
root@ubuntu:/var/cache/bind#
```

```
root@ubuntu: /var/cache/bind
root@ubuntu:/var/cache/bind# cat /etc/resolv.conf
nameserver 10.252.44.183
domain training.com
root@ubuntu:/var/cache/bind# ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 00:0c:29:4e:0b:db
          inet addr:10.252.44.183  Bcast:10.252.44.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fe4e:bdb/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:8987 errors:0 dropped:0 overruns:0 frame:0
          TX packets:2759 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:709571 (709.5 KB)  TX bytes:376224 (376.2 KB)
          Interrupt:18 Base address:0x2000

root@ubuntu:/var/cache/bind# nslookup 10.252.44.183
Server:      10.252.44.183
Address:     10.252.44.183#53

183.44.252.10.in-addr.arpa      name = ns1.training.com.
183.44.252.10.in-addr.arpa      name = www.training.com.
183.44.252.10.in-addr.arpa      name = mail.training.com.
183.44.252.10.in-addr.arpa      name = milis.training.com.

root@ubuntu:/var/cache/bind# nslookup mail.training.com
Server:      10.252.44.183
Address:     10.252.44.183#53

Name:   mail.training.com
Address: 10.252.44.183

root@ubuntu:/var/cache/bind# █
```

```
root@ubuntu: /var/cache/bind
root@ubuntu:/var/cache/bind# apt-get install postfix
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  binutils gcc-4.5-base libc-bin libc-dev-bin libc6 libc6-dev libdb4.8 libssl10.9.8 libstdc++6
Suggested packages:
  binutils-doc glibc-doc procmail postfix-mysql postfix-pgsql postfix-ldap postfix-pcre sasl2-bin resolvconf
  postfix-cdb
Recommended packages:
  manpages-dev
The following packages will be REMOVED:
  libc6-i686
The following NEW packages will be installed:
  gcc-4.5-base libc-bin libc-dev-bin libdb4.8
The following packages will be upgraded:
  binutils libc6 libc6-dev libssl10.9.8 libstdc++6 postfix
6 upgraded, 4 newly installed, 1 to remove and 1126 not upgraded.
Need to get 15.4MB of archives.
After this operation, 1991kB disk space will be freed.
Do you want to continue [Y/n]? █
```

```
root@ubuntu: /var/cache/bind
root@ubuntu:/var/cache/bind# apt-get install courier-imap
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  courier-authlib courier-base libltdl7
Suggested packages:
  courier-doc courier-imap-ssl
The following packages will be upgraded:
  courier-authlib courier-base courier-imap libltdl7
4 upgraded, 0 newly installed, 0 to remove and 1128 not upgraded.
Need to get 1229kB of archives.
After this operation, 53.2kB of additional disk space will be used.
Do you want to continue [Y/n]? █
```

```
ations Slide Show Review View
root@ubuntu: /var/cache/bind
root@ubuntu:/var/cache/bind# apt-get install courier-pop
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  courier-authlib courier-base libltdl7
Suggested packages:
  courier-doc courier-pop-ssl
The following packages will be upgraded:
  courier-authlib courier-base courier-pop libltdl7
4 upgraded, 0 newly installed, 0 to remove and 1128 not upgraded.
Need to get 682kB of archives.
After this operation, 49.2kB of additional disk space will be used.
Do you want to continue [Y/n]? █
```

```
root@ubuntu: /var/www
root@ubuntu:/var/cache/bind# cd /
root@ubuntu:/# cd /var/www/
root@ubuntu:/var/www# ls
index.html  index.php  mail  mailman  php  www
root@ubuntu:/var/www# cat /etc/apache2/sites-available/
default      default-ssl  hero          mail          www
root@ubuntu:/var/www# cat /etc/apache2/sites-available/mail
<VirtualHost *:80>
    ServerAdmin webmaster@localhost
    ServerName mail.training.com
    DocumentRoot /var/www/mail
    <Directory />
        Options FollowSymLinks
        AllowOverride None
    </Directory>
    <Directory /var/www/>
        Options Indexes FollowSymLinks MultiViews
        AllowOverride None
        Order allow,deny
        allow from all
    </Directory>

    ScriptAlias /cgi-bin/ /usr/lib/cgi-bin/
    <Directory "/usr/lib/cgi-bin">
        AllowOverride None
        Options +ExecCGI -MultiViews +SymLinksIfOwnerMatch
        Order allow,deny
        Allow from all
    </Directory>

    ErrorLog /var/log/apache2/error.log

    # Possible values include: debug, info, notice, warn, error, crit,
    # alert, emerg.
```

SquirrelMail - Login - Mozilla Firefox

File Edit View History Bookmarks Tools Help

← → http://mail.training.com/src/login.php

Video jadwal+timnas+u+23 Search Download video amazon.com Translate webpage jadwal+timnas+u+23

Program Pe... EEPIS Mail S... Internationa... Squirrel... x Absensi Per... jadwal timn... Timnas Ind... Inilah Jadwa... Sederet.co... YouTube VC



SquirrelMail version 1.4.15  
By the SquirrelMail Project Team

**SquirrelMail Login**

Name:

Password:

Login



```
root@ubuntu: /home/user1/Maildir/new
root@ubuntu:/var/www# ls /etc/skel/
examples.desktop  Maildir
root@ubuntu:/var/www# ls /home/
ftp/      hero/      user1/     user2/     virtual/  yudo/
root@ubuntu:/var/www# ls /home/ls /home/user1/
ls: cannot access /home/ls: No such file or directory
/home/user1/:
examples.desktop  Maildir
root@ubuntu:/var/www# ls /home/user2/
examples.desktop  Maildir
root@ubuntu:/var/www# ls /home/user1/
examples.desktop  Maildir
root@ubuntu:/var/www# pwd
/var/www
root@ubuntu:/var/www# cd /home/user1/Maildir/
root@ubuntu:/home/user1/Maildir# ls
courierimapkeywords  courierimapsubscribed  courierimapuidb  cur  new  tmp
root@ubuntu:/home/user1/Maildir# cd new/
root@ubuntu:/home/user1/Maildir/new# cd cur
bash: cd: cur: No such file or directory
root@ubuntu:/home/user1/Maildir/new# ls ../cur/
1291080759.V801I505e8M721857.ubuntu:2,S  1292440195.V801I5036bM507746.ubuntu:2,S
1291093118.V801I505d7M186492.ubuntu:2,    1292440286.V801I50631M254454.ubuntu:2,S
1292439129.V801I5063eM706775.ubuntu:2,S
root@ubuntu:/home/user1/Maildir/new# ls ../new/
root@ubuntu:/home/user1/Maildir/new# █
```

root@ubuntu: /home/user1/Maildir/new

```
root@ubuntu:/home/user1/Maildir/new# apt-cache search pine|grep mail|more
fetchmail - SSL enabled POP3, APOP, IMAP mail gatherer/forwarder
lbdb - The little brother's database for the mutt mail reader
mutt - text-based mailreader supporting MIME, GPG, PGP and threading
alpine - Text-based email client, friendly for novices but powerful
alpine-dbg - Text-based email client's debugging symbols
alpine-pico - Simple text editor from Alpine, a text-based email client
libmail-cclient-perl - Interface to UW c-client library
pilot - Simple file browser from Alpine, a text-based email client
sanitizer - The Anomy Mail Sanitizer - an email virus scanner
root@ubuntu:/home/user1/Maildir/new# apt-get install alpine
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  libgssapi-krb5-2 libk5crypto3 libkrb5-3 libkrb5support0 libssl10.9.8
Suggested packages:
  krb5-doc krb5-user
The following NEW packages will be installed:
  alpine libgssapi-krb5-2 libk5crypto3 libkrb5-3 libkrb5support0
The following packages will be upgraded:
  libssl10.9.8
1 upgraded, 5 newly installed, 0 to remove and 1131 not upgraded.
Need to get 4396kB of archives.
After this operation, 3199kB of additional disk space will be used.
Do you want to continue [Y/n]? y
```

```
user1@ubuntu: ~/Maildir/new
ALPINE 2.00  COMPOSE MESSAGE  Folder: INBOX  No Messages
To      : user2@training.com
Cc      :
Attchmnt:
Subject : test dari user1
----- Message Text -----
testing dari user1@training.com ke user2@training.com
ok

Send message?
? Help      Y [Yes]      ^V NoFlow      E Encrypt
^C Cancel   N No          E Priority    G Sign
```

```
user2@ubuntu: ~/Maildir/new
Processing triggers for libc6 ...
ldconfig deferred processing now taking place
root@ubuntu:/home/user1/Maildir/new#
root@ubuntu:/home/user1/Maildir/new# alpine
Creating subdirectory "/root/mail" where Alpine will store its
mail folders.

Alpine finished -- Closed folder "INBOX". Kept all 2 messages.
root@ubuntu:/home/user1/Maildir/new#
root@ubuntu:/home/user1/Maildir/new# su user1
user1@ubuntu:~/Maildir/new$ alpine
Creating subdirectory "/home/user1/mail" where Alpine will store
its mail folders.
Alpine finished -- Closed empty folder "INBOX"
user1@ubuntu:~/Maildir/new$ su user2
Password:
user2@ubuntu:/home/user1/Maildir/new$ cd /home/user2/Maildir/new/
user2@ubuntu:~/Maildir/new$ ls
1318552084.V801I50696M973517.ubuntu
```

```
user2@ubuntu: ~/Maildir/new
cat: 1: No such file or directory
user2@ubuntu:~/Maildir/new$ cat 1318552084.V801I50696M973517.ubuntu
Return-Path: <user1@ubuntu.eepis-its.edu>
X-Original-To: user2@training.com
Delivered-To: user2@training.com
Received: by ubuntu.eepis-its.edu (Postfix, from userid 1001)
        id E16574CAC3; Fri, 14 Oct 2011 07:28:04 +0700 (WIT)
Received: from localhost (localhost [127.0.0.1])
        by ubuntu.eepis-its.edu (Postfix) with ESMTP id D271D4CAC2
        for <user2@training.com>; Fri, 14 Oct 2011 07:28:04 +0700 (WIT)
Date: Fri, 14 Oct 2011 07:28:04 +0700 (WIT)
From: user1@ubuntu.eepis-its.edu
To: user2@training.com
Subject: test dari user1
Message-ID: <alpine.DEB.2.00.1110140726550.8465@ubuntu.eepis-its.edu>
User-Agent: Alpine 2.00 (DEB 1167 2008-08-23)
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; format=flowed; charset=US-ASCII

testing dari user1@training.com ke user2@training.com
ok

user2@ubuntu:~/Maildir/new$ pwd
/home/user2/Maildir/new
user2@ubuntu:~/Maildir/new$ █
```

- Folders**  
 Last Refresh:  
 Fri, 7:33 am  
 (Check mail)
- INBOX (8)
  - Drafts
  - Sent
  - Trash

Current Folder: **INBOX** [Sign Out](#)  
[Compose](#) [Addresses](#) [Folders](#) [Options](#) [Search](#) [Help](#) [SquirrelMail](#)

[Toggle All](#) Viewing Messages: 1 to 15 (15 total)

Move Selected To: INBOX   Transform Selected Messages:

From	Date	Subject
<input type="checkbox"/> user1@ubuntu.eepis-its.edu	7:28 am	test dari user1
<input type="checkbox"/> user1@mail.training.com	Dec 16, 2010	[Milis1] milis1@mail.training.com
<input type="checkbox"/> milis1-request@mail.training.com	Dec 16, 2010	Welcome to the "Milis1" mailing list
<input type="checkbox"/> user1@mail.training.com	Dec 14, 2010	user2@virtual1.com
<input type="checkbox"/> user1@mail.training.com	Dec 14, 2010	user2
<input type="checkbox"/> user1@mail.training.com	Dec 14, 2010	user2@virtual2.com
<input type="checkbox"/> user1@mail.training.com	Dec 14, 2010	user2@virtual2.com
<input type="checkbox"/> user1@mail.training.com	Dec 14, 2010	virtual1.com
<input type="checkbox"/> user1@mail.training.com	Dec 14, 2010	@mail.training.com
<input type="checkbox"/> user1@mail.training.com	Dec 1, 2010	virtual3.com - 1
<input type="checkbox"/> user1@mail.training.com	Dec 1, 2010	virtual2.com
<input type="checkbox"/> user1@mail.training.com	Dec 1, 2010	coba 1
<input type="checkbox"/> user1@mail.training.com	Nov 30, 2010	test
<input type="checkbox"/> user1@mail.training.com	Nov 30, 2010	test user1-2
<input type="checkbox"/> user1@mail.training.com	Nov 30, 2010	test

[Toggle All](#)



**SquirrelMail**  
 webmail  
 for  
 nuts

SquirrelMail version 1.4.15  
 By the SquirrelMail Project Team

**SquirrelMail Login**

Name:

Password:

```
root@ubuntu: /etc/postfix

mailbox_size_limit = 0
recipient_delimiter = +
inet_interfaces = all
home_mailbox=Maildir/

#virtual_alias_domains= virtual2.com
#virtual_alias_maps =hash:/etc/postfix/virtual2

virtual_mailbox_domains=virtual3.com
virtual_mailbox_base=/var/mail/vhosts
virtual_mailbox_maps= hash:/etc/postfix/virtual3
#virtual_minimum_uid=100
virtual_uid_maps= static:1003
virtual_gid_maps= static:1003
#virtual_alias_maps= hash:/etc/postfix/virtual

#---virtual4.com
#virtual_transport=
virtual_mailbox_domains= virtual4.com
virtual_mailbox_base=/
virtual_mailbox_maps=hash:/etc/postfix/vmailbox4
virtual_alias_maps= hash:/etc/postfix/virtual4
```

```
root@ubuntu: /etc/postfix# cat virtual2
user2@virtual2.com user2
root@ubuntu: /etc/postfix#
root@ubuntu: /etc/postfix#
root@ubuntu: /etc/postfix# cat virtual3
info@virtual3.com      virtual3.com/info/
root@ubuntu: /etc/postfix#
root@ubuntu: /etc/postfix#
root@ubuntu: /etc/postfix# cat virtual4
info4@virtual4.com     hero@eepis-its.edu
root@ubuntu: /etc/postfix#
root@ubuntu: /etc/postfix#
root@ubuntu: /etc/postfix#
```

```
root@ubuntu: /etc/postfix# ls
dynamicmaps.cf  master.cf      sasl          virtual3      virtual.db
main.cf         postfix-files  virtual       virtual3.db   vmmailbox
main.cf.1      postfix-script virtual2       virtual4      vmmailbox4
main.cf.asli   post-install   virtual2.db   virtual4.db   vmmailbox4.db
root@ubuntu: /etc/postfix#
```

SquirrelMail 1.4.15 - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://mail.training.com/src/webmail.php

Video jadwal+timnas+u+23 Search Download video amazon.com Translate webpage jadwal+timnas+

Program Pe... EEPIS Mail S... Internationa... Squirrel... x Absensi Per... jadwal timn... Timnas Ind... Inilah

**Folders**  
Last Refresh:  
Fri, 7:33 am  
(Check mail)

- **INBOX** (8)
- Drafts
- Sent
- Trash

Current Folder: **INBOX**

[Compose](#) [Addresses](#) [Folders](#) [Options](#) [Search](#) [Help](#)

[Message List](#) | [Delete](#) [Previous](#)

**Subject:** user2@virtual2.com  
**From:** user1@mail.training.com  
**Date:** Tue, December 14, 2010 6:30 pm  
**To:** user2@virtual2.com  
**Priority:** Normal  
**Options:** [View Full Header](#) | [View Printable Version](#) | [Download this as a file](#)

[user2@virtual2.com](mailto:user2@virtual2.com)

Browser address bar: <https://mail.eepis-its.edu/zimbra/#1>

Browser tabs: Program Pe..., EEPIS Ma..., Internationa..., SquirrelMail..., Absensi Per..., jadwal timn..., Timnas Ind..., Inilah Jadwa..., Sederet.co...

### EEPIS Webmail

Navigation: Mail | Address Book | Calendar | Tasks | Briefcase | Preferences | Social

Left sidebar: Folders (Inbox (1), Sent, Drafts (4), Junk (2), Trash, dosen IT, dosen pens, Goodle, id-vpn, Find Shares...), Searches, Tags, Zimlets

Search: Search

Toolbar: New, Get Mail, Delete, Reply, Reply to All, Forward, Spam, View

	From	Subject
<input type="checkbox"/>	<b>user1@mail.training.com</b>	<b>testing mail.training.com - user1@training.com ke hero@eepis-its.edu</b>
<input type="checkbox"/>	Nana Ramadjanti	[Dosenit] Hasil Rapat SAP/AP ELearning Modul Interaktif D4LJPJJIT Smstr 3 Seamolec - I
<input type="checkbox"/>	Research	Fw: Call for Papers, International Conference on Management Research (ICMR), 2011 h
<input type="checkbox"/>	Rengga Asmara	Jadwal Kedatangan Tamu IES, TCT, TUT (Full Version) - dear all, bersama ini saya kirimk
<input type="checkbox"/>	Hero Yudo Martono	jepang - -- EEPIS - Bridge To The Future This email was sent using EEPIS Webmail https:
<input type="checkbox"/>	Hero, Dwi	Re: Poster - oh iya pak.... sama2... oh kalau masalah itu gampang pak... he... he...
<input type="checkbox"/>	Arif, Isbat, Edi	Re: Silahkan Lihat Video Sales Magic Saya Hehehehe - Hehehehe,BH Rasa Coklat Keju
<input type="checkbox"/>	Eko Henfri Binugroho	[Dosenpens] Undangan untuk berpartisipasi pada kegiatan IES 2011 - Salam, Demi sema
<input type="checkbox"/>	Rusminto Tjatur Widodo	[Dosenpens] Fwd: Invitation for submission of Research Article in IRRAS - Dear Doser
<input type="checkbox"/>	Eko Henfri Binugroho	[Dosenpens] Reminder - Rapat Koordinasi terakhir untuk Panitia & Moderator IES 2011 -



<input type="checkbox"/>						From		Subject
<input type="checkbox"/>						user1@mail.training.com		testing mail.training.com - user1@training.com ke hero@eepis-its.edu
<input type="checkbox"/>						Nana Ramadjanti		[Dosenit] Hasil Rapat SAP/AP ELearning Modul Interaktif D4LJPJIT Smstr 3 Seamolec - Dear teman2 dosen IT,
<input type="checkbox"/>						Research		Fw: Call for Papers, International Conference on Management Research (ICMR), 2011 held on 15-16 Dec,2011
<input type="checkbox"/>						Rengga Asmara		Jadwal Kedatangan Tamu IES, TCT, TUT (Full Version) - dear all, bersama ini saya kirimkan file jadwal final unti
<input type="checkbox"/>						Hero Yudo Martono		jepang - -- EEPIS - Bridge To The Future This email was sent using EEPIS Webmail https://mail.eepis-its.edu
<input type="checkbox"/>						Hero, Dwi		Re: Poster - oh iya pak... sama2... oh kalau masalah itu gampang pak... he... he...
<input type="checkbox"/>						Arif, Isbat, Edi		Re: Silahkan Lihat Video Sales Magic Saya Hehehehe - Hehehehe,BH Rasa Coklat Keju hehehehe.....sebentar
<input type="checkbox"/>						Eko Henfri Binugroho		[Dosenpens] Undangan untuk berpartisipasi pada kegiatan IES 2011 - Salam, Demi semaraknya kegiatan IES, m
<input type="checkbox"/>						Rusminto Tjatur Widodo		[Dosenpens] Fwd: Invitation for submission of Research Article in IRRAS - Dear Dosen PENS, Barangkali ada
<input type="checkbox"/>						Eko Henfri Binugroho		[Dosenpens] Reminder - Rapat Koordinasi terakhir untuk Panitia & Moderator IES 2011 - Salam, Mengingatkan k

---

**testing mail.training.com**

▼ From: user1@mail.training.com

To: hero@eepis-its.edu

user1@training.com ke hero@eepis-its.edu

```
user1@ubuntu: /etc/postfix
ALPINE 2.00  COMPOSE MESSAGE  Folder: INBOX  No Messages
To      : hero_eepis@yahoo.com
Cc      :
Attchmnt:
Subject : testing yahoo
----- Message Text -----
user1@training.com ke hero_eepis@yahoo.com
ok
█
^G Get Help  ^X Send      ^R Read File ^Y Prev Pg  ^K Cut Text  ^O Postpone
^C Cancel    ^J Justify   ^W Where is  ^V Next Pg  ^U UnCut Text ^T To Spell
```