



CentOS

SSH - Server

Konfigurasi Network

DHCP-Server

Manajemen User

Web-Server

DNS-Server

Mail-Server

Database-Server

VOIP

Cloud Computing

KUPLUG

KOMUNITAS PENGGUNA LINUX GUNADARMA

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KATA PENGANTAR

Dengan mengucapkan puji dan syukur Alhamdulillah, Modul “centOS 6.3 ini Selesai juga.

Penulis mendedikasikan kepada semua pengurus KUPLUG (Komunitas Pengguna Linux Gunadarma) yang telah membantu dalam penyelesaian modul sederhana ini. Kepada sahabat-sahabat pengurus Jemiro Kasih, Junior Core aka Indra, Herwin Goernia, Robbyana Akbar, Aditya Nugroho, Saptu Arios, Thomas E.S, Ibnu M, M Galang, Lita, Misna, Yosef, Ridho S I, Aditya N, Razib KM, dan mora.

Penulis mengharapkan dengan materi-materi yang disusun dengan singkat ini modul ini akan memudahkan siapapun dalam mempelajari centOS. Secara singkat CentOS adalah server yang stabil dan tidak mudah memasukkan software yang tidak stabil kedalam reponya itu menunjukkan bahwa kekonsistenan centOS dalam kestabilan server linux, dan siapapun yang mempelajari centOS akan merasakan dahsyatnya kestabilan redhat, karena ?ya, centOS adalah turunan dari si topi merah.

Akhir kata, semoga Modul dan tutorial sederhana ini dapat digunakan sebaik-baiknya tanpa merubah author maupun isi secara sepihak. Penulis pun menerima kritik apabila terjadi kesalahan penulis dalam menulis maupun kekeliruan penulis karena ilmu penulis yang masih sempit.

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CentOS 6.3

CentOS(Community ENTERprise Operating System) adalah sebuah distro (distribusi) linux sebagai bentuk dari usaha menyediakan platform komputasi berkelas enterprise yang memiliki kompatibilitas kode biner sepenuhnya dengan kode sumber yang menjadi induknya (Open Source), berbasis RHEL (Red Hat Enterprise Linux).

Kenapa Harus CentOS?

Gak ada keharusan pengguna harus menggunakan CentOS, tetapi penulis menilai bahwa distribusi CentOS memiliki kestabilan dalam penggunaan repositorynya karena repo CentOS mengharuskan software pihak ke-2 harus stable dalam setiap distribusinya, walaupun kekurangannya adalah kesusahan dalam menginstall program yang mau digunakan, tetapi belum dianggap Stable.

Mari kita lanjutkan di Bab Selanjutnya..

1. Manajemen User

Dalam dunia pa-Linux-an manajemen user sangat penting, karena akan berakibat fatal apabila user bisa mengakses sebagai root. Dalam hal ini penulis membuat user root yang artinya hanya user ini yang berhak menjadi root.

1. Pertama buat user baru, saya akan membuat user kisahpemimpi, dengan menggunakan perintah "*useradd <namauser>*"

```
CentOS release 6.3 (Final)
Kernel 2.6.32-279.14.1.el6.i686 on an i686

localhost login: root
Password:
Last login: Sun Jan 27 21:11:44 on tty1
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# useradd kisahpemimpi
[root@localhost ~]# _
```

2. Selanjutnya memberikan password kepada user kisahpemimpi dengan menggunakan perintah "*passwd kisahpemimpi*"

```
[root@localhost ~]# passwd kisahpemimpi
Changing password for user kisahpemimpi.
New password:
BAD PASSWORD: it is based on a dictionary word
BAD PASSWORD: is too simple
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]# _
```

3. Kalau ingin mencoba gunakan perintah "*logout*" dan masukkan kembali username dan password.

4. Selanjutnya login sebagai user kisahpemimpi.

5. Masukkan perintah *su* untuk menjadi root/user_user.

```
CentOS release 6.3 (Final)
Kernel 2.6.32-279.14.1.el6.i686 on an i686

localhost login: kisahpemimpi
Password:
[kisahpemimpi@localhost ~]# su
Password:
[root@localhost kisahpemimpi]# _
```

6. Selanjutnya ketikkan perintah *"nano /etc/group"* pada baris kesebelas disamping wheel:x:10:root. Jadikan kisahpemimpi bisa mengakses root. Atau bisa juga dengan menggunakan perintah *"usermod -G wheel kisahpemimpi"* gunakan salah satu saja.

```
GNU nano 2.0.9      File: /etc/group

root:x:0:
bin:x:1:bin,daemon
daemon:x:2:bin,daemon
sys:x:3:bin,adm
adm:x:4:adm,daemon
tty:x:5:
disk:x:6:
lp:x:7:daemon
mem:x:8:
kmem:x:9:
wheel:x:10:root,kisahpemimpi
mail:x:12:mail,postfix
uucp:x:14:
man:x:15:
games:x:20:
gopher:x:30:
video:x:39:
dip:x:40:
ftp:x:50:
lock:x:54:
```

7. Selanjutnya adalah menghentikan autentikasi ke siapapun kecuali ke user yang kita izinkan tadi. *"nano /etc/pam.d/su "* dan hapus tanda`"#"` seperti di command.

```
GNU nano 2.0.9      File: /etc/pam.d/su

#%PAM-1.0
auth                sufficient      pam_rootok.so
# Uncomment the following line to implicitly trust users in the "wheel" group.
#auth               sufficient      pam_wheel.so trust use_uid
# Uncomment the following line to require a user to be in the "wheel" group.
#auth               required        pam_wheel.so use_uid
auth                include         system-auth
account             sufficient      pam_succeed_if.so uid = 0 use_uid quiet
password            include         system-auth
session             include         system-auth
session             optional       pam_xauth.so
```

8. terakhir "nano /etc/aliases" dan pada baris paling bawah cari seperti digambar dan buat seperti digambar

```
GNU nano 2.0.9      File: /etc/aliases      Modified

# trap decode to catch security attacks
decode:                root

# Person who should get root's mail
root:                  kisahpemimpi_
```

9. Terakhir jalankan konfigurasi dengan perintah "*newaliases*".

10. Selesai

2. Disable Firewall

Fungsi Disable firewall adalah untuk konfigurasi sementara agar semua service dan port terbuka. Misalkan port 22 untuk SSH (remote) akan mati secara default.

1. Menghentikan iptables , jika iptables jalan di lan

```
/etc/rc.d/init.d/iptables stop
```

```
chkconfig iptables off
```

```
chkconfig ip6tables off
```

2. menonaktifkan SELinux (Security-Enhanced Linux), jika tidak dibutuhkan
"nano /etc/sysconfig/selinux"

```
# This file controls the state of SELinux on the system.
```

```
# SELINUX= can take one of these three values:
```

```
#enforcing - SELinux security policy is enforced.
```

```
#permissive - SELinux prints warnings instead of enforcing.
```

```
#disabled - SELinux is fully disabled.
```

```
SELINUX=disabled          # rubah menjadi disable
```

```
# SELINUXTYPE= type of policy in use. Possible values are:
```

```
#targeted - Only targeted network daemons are protected.
```

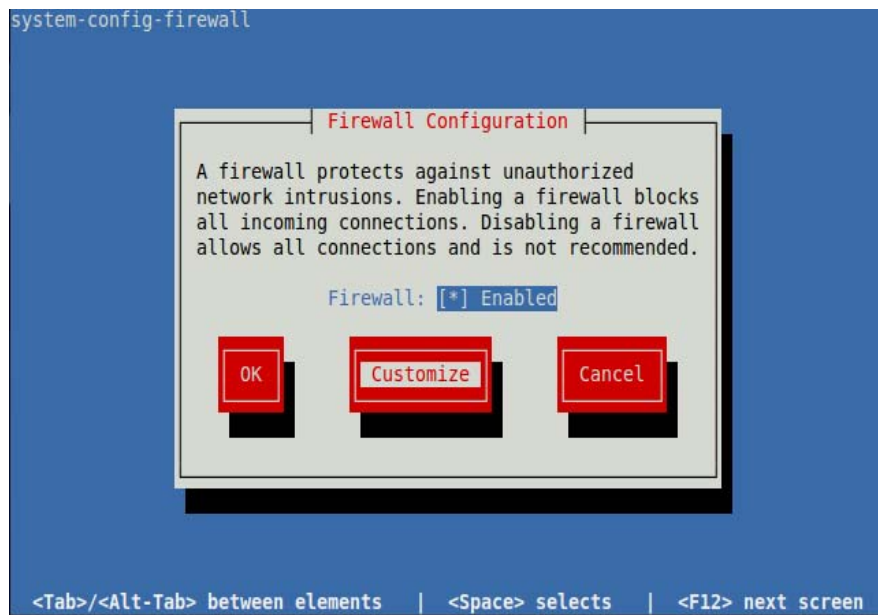
```
# SELINUXTYPE= type of policy in use. Possible values are:
```

```
#targeted - Only targeted network daemons are protected.
```

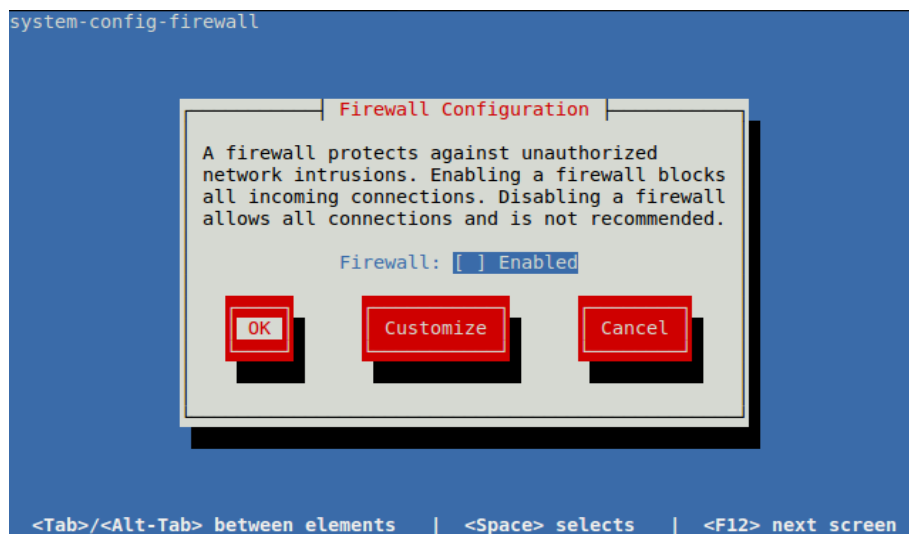
```
#strict - Full SELinux protection.
```

```
SELINUXTYPE=targeted
```


4. atau menggunakan config tui dengan memasukkan perintah *"system-config-firewall-tui"*



5. rubahlah menjadi



6. Selesai.

3. Konfigurasi Network

1. Pindah ke direktori network script "cd /etc/sysconfig/network-scripts/"
2. cp ifcfg-lo ifcfg-eth1
3. nano ifcfg-eth1

DEVICE=eth1

HWADDR=00:30:67:5A:71:0E

TYPE=Ethernet

IPADDR=192.168.2.2

NETMASK=255.255.255.0

NETWORK=192.168.2.0

GATEWAY=192.168.2.1

DNS1=192.168.2.2

DNS2=8.8.8.8

ONBOOT=yes

4. Restart network "/etc/init.d/network restart"
5. Cek ip "ifconfig"

4. Menambah Repo & upgrade

Apa itu repo (repository) ? Repository adalah kumpulan file master yang berada di server repo kumpulan dari file-file besar yang tersentralisasi untuk memudahkan user dalam mengambil paket-paket software yang hendak di pasang (install) di end user. Nah sekarang kita akan menjadi end user tersebut.

1. Pertama , kita akan mendownload repository **epel** dan repository **rpm-forge**. Dengan perintah

```
#wget http://dl.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm
```

```
#wget http://pkgs.repoforge.org/rpmforge-release/rpmforge-release-0.5.3-1.el6.rf.x86\_64.rpm
```

2. install repo tersebut dengan cara :

```
#rpm -Uvh rpmforge-release-0.5.3-1.el6.rf.x86_64.rpm
```

```
#rpm -Uvh epel-release-6-8.noarch.rpm
```

3. enable repo dengan cara di bawah:

```
#sed -i -e "s/enabled=1/enabled=0/g" /etc/yum.repos.d/epel.repo
```

```
#sed -i -e "s/enabled = 1/enabled = 0/g" /etc/yum.repos.d/rpmforge.repo
```

4. contoh installa dengan 2 repo di atas.

```
#yum --enablerepo=epel install nama_software
```

```
#yum --enablerepo=rpmforge install nama_software
```

5. Selanjutnya update server anda

```
#yum -y install yum-plugin-fastestmirror
```

```
#yum -y update
```

6. Selesai.

5. SSH-Server (Secure Shell)

SSH atau Secure Shell adalah protokol jaringan yang memungkinkan pertukaran data melalui saluran aman antara dua perangkat jaringan atau bisa di sebut juga untuk mengendalikan server dalam jarak jauh (remote server). SSH memungkinkan kalian lebih aman dalam menggunakan

Secara default SSH-server telah aktif di CentOS maka yang perlu kita lakukan adalah menjalankannya dan mengaktifkannya setiap kali booting.

1. Jalankan dengan cara.

```
#/etc/init.d/sshd start
```

2. Aktifkan setiap kali booting dengan cara berikut.

```
#chkconfig sshd on
```

3. Apabila anda ingin mengganti port defaultnya bisa dengan “nano /etc/ssh/sshd_config.

Carilah pada bagian Port 22 dan gantilah contoh seperti dibawah



```
GNU nano 2.0.9      File: /etc/ssh/sshd config
# $OpenBSD: sshd_config,v 1.80 2008/07/02 02:24:18 djm Exp $
# This is the sshd server system-wide configuration file.  See
# sshd_config(5) for more information.
# This sshd was compiled with PATH=/usr/local/bin:/bin:/usr/bin
# The strategy used for options in the default sshd_config shipped with
# OpenSSH is to specify options with their default value where
# possible, but leave them commented.  Uncommented options change a
# default value.
Port 10098
#AddressFamily any
#ListenAddress 0.0.0.0
#ListenAddress ::
```

6. DHCP-Server

DHCP atau Dynamic Host Configuration Protocol adalah protokol yang berbasis arsitektur client-server yang di pakai untuk memudahkan pengalokasian alamat-IP secara otomatis dalam satu jaringan. Server-DHCP akan membagikan IP kepada komputer secara otomatis bukan hanya IP, gateway dan DNS juga bisa di berikan secara otomatis.

1. Install DHCP-Server

```
#yum -y install dhcp
```

2. Copi file defaulth dhcp

```
#cp /usr/share/doc/dhcp-4.1.1/dhcpd.conf.sample /etc/dhcp/dhcpd.conf
```

tekan y → enter

3. Selanjutnya cari bagian ini dan sesuaikan dengan ip anda

```
# A slightly different configuration for an internal subnet.
```

```
Subnet 192.168.2.2 netmask 255.255.255.0 {
```

```
    range 192.168.2.3 192.168.2.100;
```

```
    option domain-name-servers 192.168.2.2;
```

```
    option domain-name "kuplug.com";
```

```
    option routers 192.168.2.2;
```

```
    option broadcast-address 192.168.2.2;
```

```
    default-lease-time 600;
```

```
    max-lease-time 7200;
```

```
}
```

4. Jalankan dhcp server

```
#/etc/init.d/dhcpd start
```

5. Aktifkan setiap kali booting

#chkconfig dhcpd on

6. Selesai

7. Web Server

WEB-Server adalah perangkat keras ataupun perangkat lunak yang menyediakan layanan akses kepada pengguna melalui protokol komunikasi HTTP ataupun HTTPS atas berkas-berkas yang terdapat pada suatu situs web dalam layanan ke pengguna dengan menggunakan aplikasi tertentu seperti web-client/browser.

INSTALASI APACHE

1. Install httpd/apache

```
#yum -y install httpd
```

```
--> Processing Dependency: httpd-tools = 2.2.15-28.el6.centos for package: httpd
2.2.15-28.el6.centos.i686
--> Running transaction check
--> Package httpd-tools.i686 0:2.2.15-15.el6.centos.1 will be updated
--> Package httpd-tools.i686 0:2.2.15-28.el6.centos will be an update
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                Arch      Version                Repository             Size
=====
Updating:
httpd                  i686      2.2.15-28.el6.centos   updates                828 k
Updating for dependencies:
httpd-tools            i686      2.2.15-28.el6.centos   updates                73 k

Transaction Summary
=====
Upgrade                2 Package(s)

Total download size: 901 k
Downloading Packages:
[1/2]: httpd-2.2.15-28 (49%) 54% [=====  ] 80 kB/s | 450 kB    00:04 ETA
```

2.aktifkan web servers setiap booting

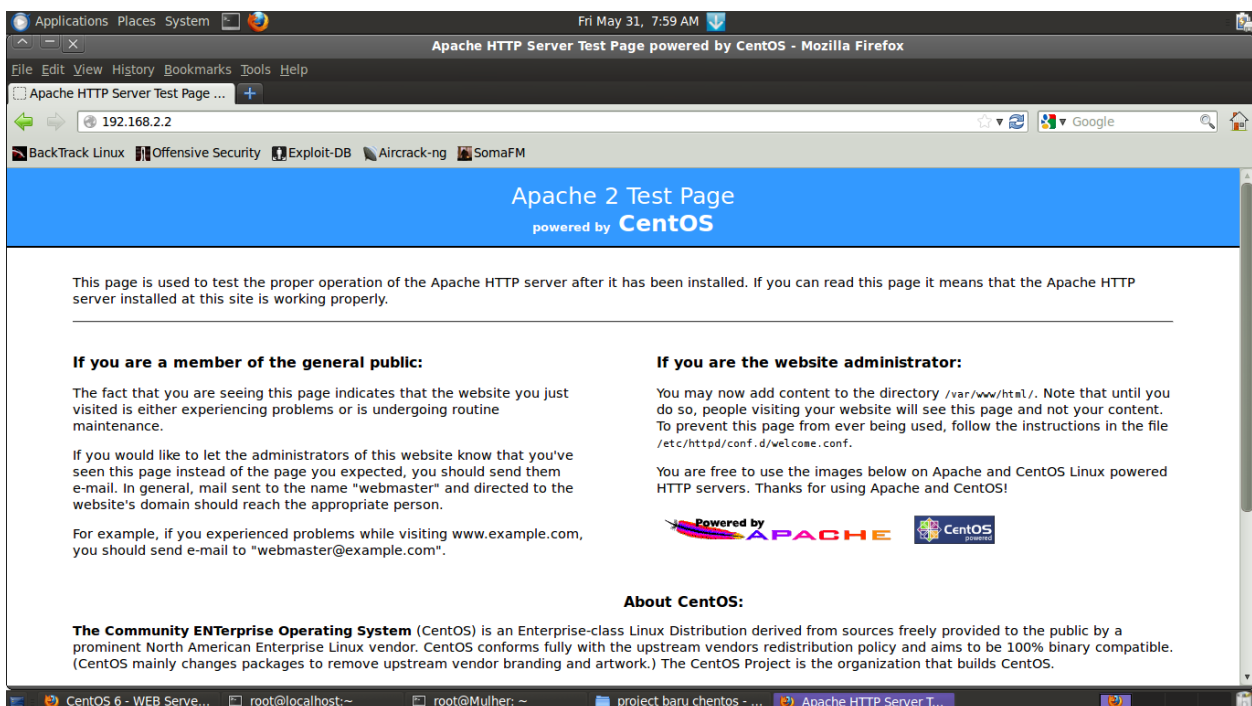
```
# chkconfig httpd on
```

3. Jalankan webserver

#/etc/init.d/httpd restart

```
[root@localhost ~]# chkconfig httpd on
[root@localhost ~]# /etc/init.d/httpd restart
Stopping httpd:                                     [ FAILED ]
Starting httpd:                                     [  OK  ]
[root@localhost ~]# /etc/init.d/httpd restart
Stopping httpd:                                     [  OK  ]
Starting httpd:                                     [  OK  ]
[root@localhost ~]#
```

4. sekarang pindah ke client dan buka http://ip_server.



5. Itu adalah tampilan default dari web server centos, tampilan defaultnya dapat dihapus dengan cara :

Menghapus Tampilan default

```
# rm -f /etc/httpd/conf.d/welcome.conf
```

Menghapus error tampilan default

```
# rm -f /var/www/error/noindex.html
```

6. Bersifat Optional. Artinya ini sebagai tambahan saja.

```
#Baris 262 , email admin
```


ServerAdmin admin@kuplug.com

#Baris276 rubah ke nama server yang kita miliki

ServerName www.kuplug.or.id:80

#Baris 331 (mengatur Index direktori)

DirectoryIndex index.html index.cgi index.php

#Baris 536 menghapus tanda server yang akan mengurangi information gathering

ServerSignature Off

8. restart apache(jika config di atas di lakukan) */etc/init.d/httpd restart*

9. Selesai

INSTALASI PHP

1. Install php dengan cara.

```
[root@localhost ~]# yum -y install php php-mbstring php-pear
Loaded plugins: fastestmirror, refresh-packagekit, security
Loading mirror speeds from cached hostfile
 * base: mirror.smartmedia.net.id
 * extras: mirror.smartmedia.net.id
 * updates: mirror.smartmedia.net.id
Setting up Install Process
Resolving Dependencies
--> Running transaction check
---> Package php.i686 0:5.3.3-22.el6 will be installed
```

#yum -y install php php-mbstring php-pear

2. Membuat information php dengan cara . "nano /var/www/html/info.php"

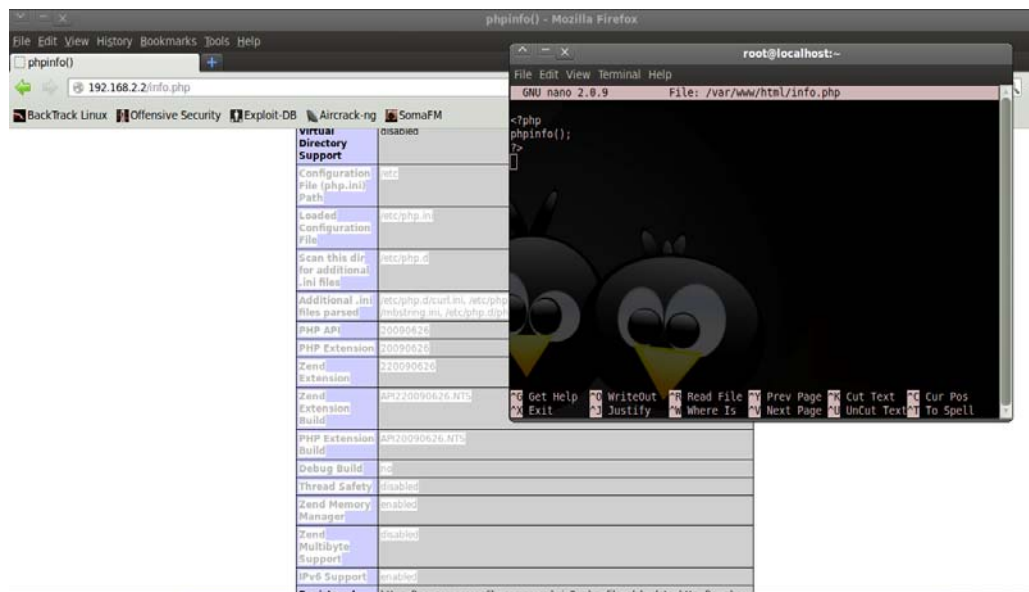
<?php

phpinfo();

?>

simpan.

3. restart httpd `"/etc/init.d/httpd restart"`. Dan di browser client dengan `http://192.168.2.2/info.php`

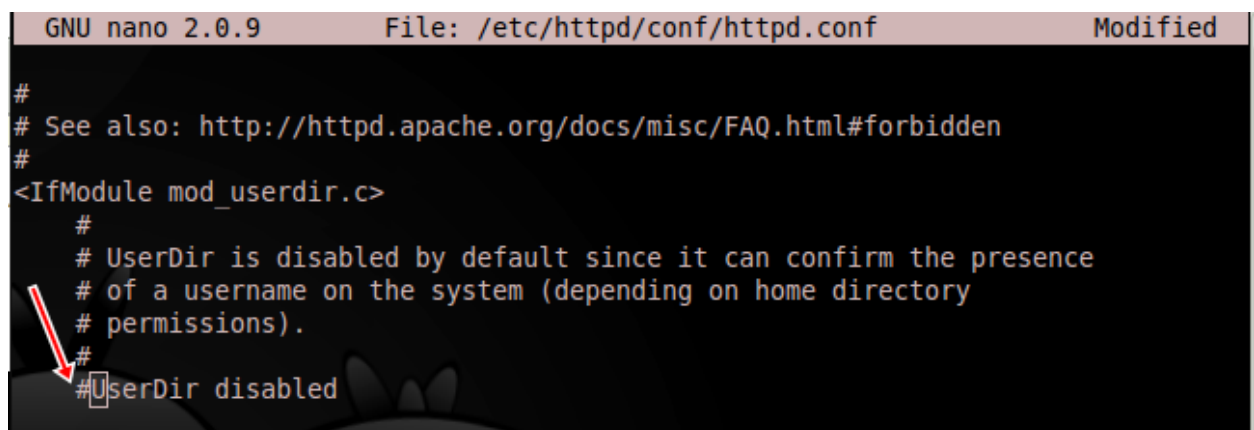


Konfigurasi User Direktori

1. Pertama Konfigurasi di lakukan di httpd dengan merubah bagian berikut:
2. `"nano /etc/httpd/conf/httpd.conf"`

```
[root@localhost ~]# nano /etc/httpd/conf/httpd.conf
```

3. Tambahkan `"#"` tanda baris 336



4. Hapus tanda “#” di baris 373

```
#UserDir disabled

#
# To enable requests to /~user/ to serve the user's public_html
# directory, remove the "UserDir disabled" line above, and uncomment
# the following line instead:
#
UserDir public_html
</IfModule>
```

5. pada baris 381~392, hapus tanda pagar dan rubah pada bagian seperti digambar :

```
GNU nano 2.0.9      File: /etc/httpd/conf/httpd.conf      Modified

<Directory /home/*/public_html>
  AllowOverride all
  Options ExecCGI
  <Limit GET POST OPTIONS>
    Order allow,deny
    Allow from all
  </Limit>
  <LimitExcept GET POST OPTIONS>
    Order deny,allow
    Deny from all
  </LimitExcept>
</Directory>
```

6. Restart httpd dan buatlah user baru contoh user saya buat adalah userweb, dan jangan lupa beri password :

```
[root@localhost ~]# nano /etc/httpd/conf/httpd.conf
[root@localhost ~]# /etc/init.d/httpd restart
Stopping httpd:
Starting httpd:
[ OK ]
[ OK ]
[root@localhost ~]#
[root@localhost ~]# adduser userweb
[root@localhost ~]# passwd userweb
Changing password for user userweb.
New password:
BAD PASSWORD: it is based on a dictionary word
BAD PASSWORD: is too simple
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]#
```

7. Logout root dan loginlah menjadi user. Dan ikuti langkah dibawah

```
#mkdir public_html
#chmod 711 /home/userweb
#chmod 755 /home/userweb/public_html
#nano public_html/index.html
<html>
Hello dunia !!!
</html>
#chmod 705 userweb/index.html
http://192.168.2.2/~userweb/
maka akan keluar html yg telah dibuat tadi
```

8. DNS Server (BIND)

BIND (singkatan dari bahasa Inggris: Berkeley Internet Name Domain) adalah server DNS yang paling umum digunakan di Internet, khususnya pada sistem operasi bertipe Unix yang secara de facto merupakan standar. BIND awalnya dibuat oleh empat orang mahasiswa di CSRG Universitas California Berkeley dan pertama kali dirilis di dalam 4.3BSD. Paul Vixie kemudian meneruskan pengembangannya pada tahun 1988 saat bekerja di DEC.

Sekarang kita akan membuat DNS server di CentOS 6.3.

1. install bind *"yum -y install bind bind-utils"*

```
[root@localhost ~]# yum -y install bind bind-utils
Loaded plugins: fastestmirror, refresh-packagekit, security
Loading mirror speeds from cached hostfile
 * base: mirror.smartmedia.net.id
 * extras: mirror.smartmedia.net.id
 * updates: mirror.smartmedia.net.id
Setting up Install Process
[
```

2. Setelah itu *"nano /etc/named.conf"* rubah pada bagian dibawah :

```
//
options {
# listen-on port 53 { 127.0.0.1; };
# listen-on-v6 port 53 { ::1; };
    directory "/var/named";
    dump-file "/var/named/data/cache_dump.db";
    statistics-file "/var/named/data/named_stats.txt";
    memstatistics-file "/var/named/data/named mem stats.txt";
    allow-query { any; };
    allow-transfer {localhost;192.168.2.0/24;0.0.0.0/0;};
    recursion yes;
}
```

3. masih di file named tadi . cari di bagian bawah dan tambahkan domain dan ip kita yang dibalik kuplug.com dan awalnya 192.168.2.2 di rubah menjadi 2.2.168.192 dan tambahkan filenya.

```
severity dynamic;
};
};
zone "." IN {
    type hint;
    file "named.ca";
};
zone "kuplug.com"{
    type master;
    file "kuplug.com.fwd";
};
zone "2.2.168.192.in-addr.arpa"{
    type master;
    file "kuplug.com.rev";
};
include "/etc/named.rfc1912.zones";
include "/etc/named.root.key";
-- INSERT --
```

4. masukkan perintah ini `"cd /var/name/"`

5. copikan file named localhost ke kuplug.com.fwd dengan cara `"cp named.localhost kuplug.com.fwd"`

6. dan buat refresh zone nya juga `"cp named.localhost kuplug.com.rev"`

7. sekarang edit file fwd `"nano kuplug.com.fwd"` dan rubah seperti di gambar.

```
$ORIGIN kuplug.com.
$TTL 3D
@ IN SOA kuplug.com. root.kuplug.com. (
    0 ; serial
    1D ; refresh
    1H ; retry
    1W ; expire
    3H ) ; minimum
kuplug.com. IN NS 192.168.2.2.
kuplug.com. IN A 192.168.2.2
@ AAAA ::1
www IN A 192.168.2.2
ftp IN CNAME @
mail IN CNAME @
virtual IN CNAME @
```

8. Dan refresh zonenya juga *"nano kuplug.com.rev"*.

```
$ORIGIN 2.2.168.192.in-addr.arpa.  
$TTL 3H  
@ IN SOA kuplug.com. root.kuplug.com. (  
                                0      ; serial  
                                1D     ; refresh  
                                1H     ; retry  
                                1W     ; expire  
                                3H )   ; minimum  
@ IN NS kuplug.com.  
2 IN PTR kuplug.com.  
~
```

9. Periksa kembali . Agar tidak terjadi eror nantinya.

10. tambahkan di *"nano /etc/resolv.conf"*

search kuplug.com

nameserver 192.168.2.2

11. jalankan dns *"/etc/init.d/named start"*

12. jalankan named waktu booting *"chkconfig named on"*

13. periksa domain *"dig kuplug.com"*

```
[root@kuplug ~]# chkconfig named on  
[root@kuplug ~]# dig kuplug.com  
  
; <> DiG 9.8.2rc1-RedHat-9.8.2-0.17.rc1.el6_4.4 <> kuplug.com  
;; global options: +cmd  
;; Got answer:  
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 9597  
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 0  
  
;; QUESTION SECTION:  
;kuplug.com. IN A  
  
;; ANSWER SECTION:  
kuplug.com. 259200 IN A 192.168.2.2  
  
;; AUTHORITY SECTION:  
kuplug.com. 259200 IN NS 192.168.2.2  
  
;; Query time: 0 msec  
;; SERVER: 192.168.2.2#53(192.168.2.2)  
;; WHEN: Fri May 31 21:43:09 2013  
;; MSG SIZE rcvd: 69  
[root@kuplug ~]#
```

14. periks ip "dig +x 192.168.2.2"

```
[root@kuplug ~]# chkconfig named on
[root@kuplug ~]# dig kuplug.com

; <<>> DiG 9.8.2rc1-RedHat-9.8.2-0.17.rc1.el6_4.4 <<>> kuplug.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 9597
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 0

;; QUESTION SECTION:
;kuplug.com.                IN      A

;; ANSWER SECTION:
kuplug.com. 259200 IN      A      192.168.2.2
;; AUTHORITY SECTION:
kuplug.com. 259200 IN      NS      192.168.2.2

;; Query time: 0 msec
;; SERVER: 192.168.2.2#53(192.168.2.2)
;; WHEN: Fri May 31 21:43:09 2013
;; MSG SIZE rcvd: 69

[root@kuplug ~]#
```

15. Selesai



VIRTUAL HOST DNS

apa itu virtual host? Virtual host juga bisa disebut sub domain. Misalkan kuplug.com memiliki sub domain **virtual.kuplug.com**, **cloud.kuplug.com**

1. tambahkan virtual host yang diinginkan di file "nano /var/named/kuplug.com.fwd" contoh:
userweb. Userweb IN CNAME @

```
$ORIGIN kuplug.com.
$TTL 30
@ IN SOA kuplug.com. root.kuplug.com. (
                                0      ; serial
                                1D      ; refresh
                                1H      ; retry
                                1W      ; expire
                                3H )    ; minimum
kuplug.com. IN NS 192.168.2.2.
kuplug.com. IN A 192.168.2.2
@ AAAA ::1
www IN A 192.168.2.2
ftp IN CNAME @
mail IN CNAME @
virtual IN CNAME @
userweb IN CNAME @
~
~
~
~
~
-- INSERT -- 17,19-26 All
```

2. restart mcd key "rndc reload"

3. nano /etc/httpd/conf/httpd.conf. Pada baris 990 hapus tanda "#"

```
#
# Please see the documentation at
# <URL:http://httpd.apache.org/docs/2.2/vhosts/>
# for further details before you try to setup virtual hosts.
#
# You may use the command line option '-S' to verify your virtual host
# configuration.
#
# Use name-based virtual hosting.
#
NameVirtualHost *:80
#
# NOTE: NameVirtualHost cannot be used without a port specifier
# (e.g. :80) if mod_ssl is being used, due to the nature of the
# SSL protocol.
#
#
# VirtualHost example:
# Almost any Apache directive may go into a VirtualHost container.
# The first VirtualHost section is used for requests without a known
# server name.
-- INSERT -- 990,1 99%
```

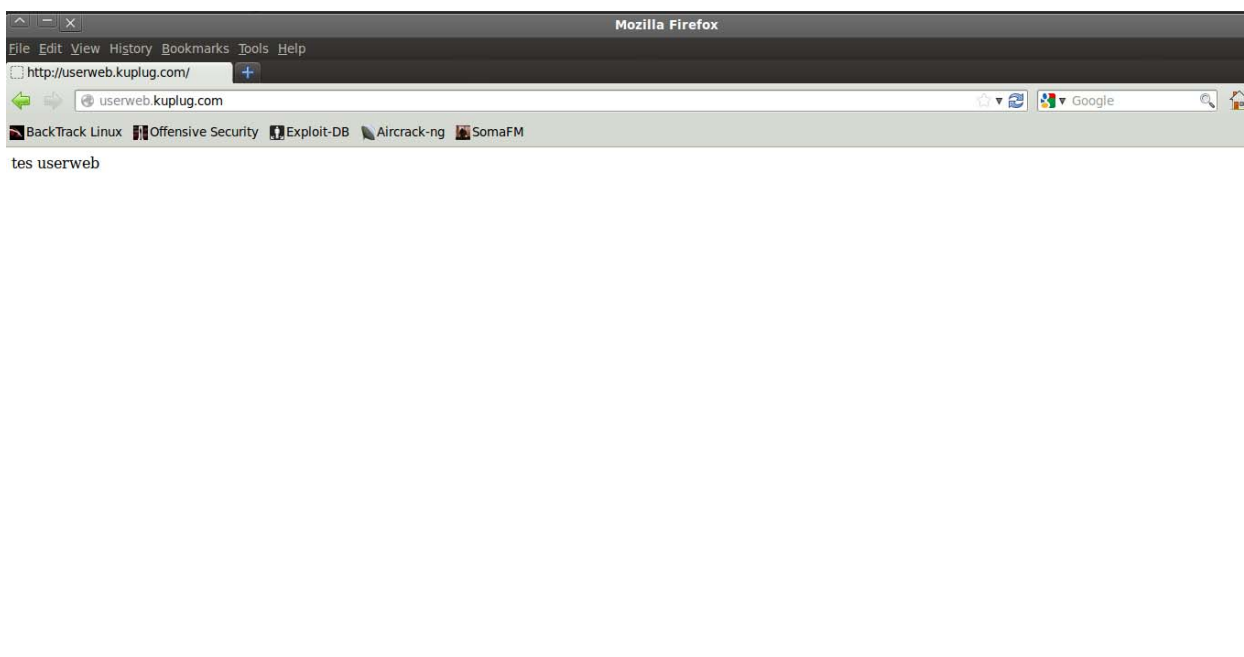


paling bawah tambahkan konfigurasi virtualhost

```
#
# NOTE: NameVirtualHost cannot be used without a port specifier
# (e.g. :80) if mod_ssl is being used, due to the nature of the
# SSL protocol.
#
#
# VirtualHost example:
# Almost any Apache directive may go into a VirtualHost container.
# The first VirtualHost section is used for requests without a known
# server name.
#
<VirtualHost *:80>
    ServerAdmin admin@kuplug.com
    DocumentRoot /var/www/html
    ServerName kuplug.com
</VirtualHost>

<VirtualHost *:80>
    DocumentRoot /home/userweb/public_html
    ServerName userweb.kuplug.com
    ServerAdmin userweb@kuplug.com
</VirtualHost>
-- INSERT --
```

4. *nano /home/userweb/public_html/index.html, tambahkan indexnya. Dan coba di client*



9. Mail Server

Mail Server adalah perangkat lunak yang berbasis client-server yang menangani pengiriman dan penerima email . Dalam hal ini kita akan menggunakan 2 software postfix dan Dovecot.

Konfigurasi POSTFIX

1. Pertama install postfix. "yum -y install postfix"

2. Nah sekarang konfigurasi postfix "nano /etc/postfix/main.cf"

myhostname = kuplug.com ##baris 75 – hilangkan "#" dan tambahkan domain

mydomain = kuplug.com ##baris 83 - hilangkan "#" dan tambahkan domain

```
# INTERNET HOST AND DOMAIN NAMES
#
# The myhostname parameter specifies the internet hostname of this
# mail system. The default is to use the fully-qualified domain name
# from gethostname(). $myhostname is used as a default value for many
# other configuration parameters.
#
myhostname = kuplug.com
#myhostname = virtual.domain.tld

# The mydomain parameter specifies the local internet domain name.
# The default is to use $myhostname minus the first component.
# $mydomain is used as a default value for many other configuration
# parameters.
#
mydomain = kuplug.com

# SENDING MAIL
#
# The myorigin parameter specifies the domain that locally-posted
# mail appears to come from. The default is to append $myhostname,
# which is fine for small sites. If you run a domain with multiple
-- INSERT --recording 83,22 10%
```



myorigin = \$mydomain ##baris 99 - hilangkan "#"

```
# SENDING MAIL
#
# The myorigin parameter specifies the domain that locally-posted
# mail appears to come from. The default is to append $myhostname,
# which is fine for small sites. If you run a domain with multiple
# machines, you should (1) change this to $mydomain and (2) set up
# a domain-wide alias database that aliases each user to
# user@that.users.mailhost.
#
# For the sake of consistency between sender and recipient addresses,
# myorigin also specifies the default domain name that is appended
# to recipient addresses that have no @domain part.
#
myorigin = $myhostname
myorigin = $mydomain

# RECEIVING MAIL

# The inet_interfaces parameter specifies the network interface
# addresses that this mail system receives mail on. By default,
# the software claims all active interfaces on the machine. The
# parameter also controls delivery of mail to user@[ip.address].
recording 103,7 12%
```

inet_interfaces = all ##baris 116 – rubah ke all

```
myorigin = $mydomain

# RECEIVING MAIL

# The inet_interfaces parameter specifies the network interface
# addresses that this mail system receives mail on. By default,
# the software claims all active interfaces on the machine. The
# parameter also controls delivery of mail to user@[ip.address].
#
# See also the proxy_interfaces parameter, for network addresses that
# are forwarded to us via a proxy or network address translator.
#
# Note: you need to stop/start Postfix when this parameter changes.
#
inet_interfaces = all
inet_interfaces = $myhostname
inet_interfaces = $myhostname, localhost
inet_interfaces = localhost

# Enable IPv4, and IPv6 if supported
inet_protocols = all

# The proxy_interfaces parameter specifies the network interface
-- INSERT --recording 116,2 15%
```



mydestination = \$myhostname, localhost.\$mydomain, localhost, \$mydomain ##baris 164 - add \$domain

```
# receives mail on (see the inet_interfaces parameter).
#
# Specify a list of host or domain names, /file/name or type:table
# patterns, separated by commas and/or whitespace. A /file/name
# pattern is replaced by its contents; a type:table is matched when
# a name matches a lookup key (the right-hand side is ignored).
# Continue long lines by starting the next line with whitespace.
#
# See also below, section "REJECTING MAIL FOR UNKNOWN LOCAL USERS".
#
mydestination = , localhost.kuplug.com, localhost, kuplug.com
mydestination = $myhostname, localhost.$mydomain, localhost, $mydomain
mydestination = $myhostname, localhost.$mydomain, localhost, $mydomain,
# mail.$mydomain, www.$mydomain, ftp.$mydomain

# REJECTING MAIL FOR UNKNOWN LOCAL USERS
#
# The local_recipient_maps parameter specifies optional lookup tables
# with all names or addresses of users that are local with respect
# to $mydestination, $inet_interfaces or $proxy_interfaces.
#
# If this parameter is defined, then the SMTP server will reject
E486: Pattern not found: asdfasdf 165,70 23%
```

mynetworks = 192.168.1.0/24, 127.0.0.0/8 ##baris 264 - uncomment and add your network range

```
# Specify an explicit list of network/netmask patterns, where the
# mask specifies the number of bits in the network part of a host
# address.
#
# You can also specify the absolute path name of a pattern file instead
# of listing the patterns here. Specify type:table for table-based lookups
# (the value on the table right-hand side is not used).
#
mynetworks = 192.168.2.0/24, 127.0.0.0/8
#mynetworks = $config_directory/mynetworks
#mynetworks = hash:/etc/postfix/network_table

# The relay_domains parameter restricts what destinations this system will
# relay mail to. See the smtpd_recipient_restrictions description in
# postconf(5) for detailed information.
#
# By default, Postfix relays mail
# - from "trusted" clients (IP address matches $mynetworks) to any destination,
# - from "untrusted" clients to destinations that match $relay_domains or
# subdomains thereof, except addresses with sender-specified routing.
# The default relay_domains value is $mydestination.
#
recording 260,41 39%
```

home_mailbox = Maildir/ ##line no 419 – uncomment

```
#recipient_delimiter = +

# DELIVERY TO MAILBOX
#
# The home_mailbox parameter specifies the optional pathname of a
# mailbox file relative to a user's home directory. The default
# mailbox file is /var/spool/mail/user or /var/mail/user. Specify
# "Maildir/" for qmail-style delivery (the / is required).
#
#home_mailbox = Mailbox
home_mailbox = Maildir/

# The mail spool directory parameter specifies the directory where
# UNIX-style mailboxes are kept. The default setting depends on the
# system type.
#
#mail_spool_directory = /var/mail
#mail_spool_directory = /var/spool/mail

# The mailbox_command parameter specifies the optional external
# command to use instead of mailbox delivery. The command is run as
# the recipient with proper HOME, SHELL and LOGNAME environment settings.
```

421,41

62%

3. restart postfix *“/etc/init.d/postfix restart”*

4. Jalankan postfix *“chkconfig postfix on”*

```
[root@kuplug ~]# reconfigure-postfix
-bash: reconfigure-postfix: command not found
[root@kuplug ~]# yum
yum                yum-config-manager  yum-debug-restore
yum-builddep       yumdb               yumdownloader
yum-complete-transaction  yum-debug-dump      yum-groups-manager
[root@kuplug ~]# vim
vim                vimdiff  vimtutor
[root@kuplug ~]# vim /etc/postfix/main.cf
main.cf  master.cf
[root@kuplug ~]# vim /etc/postfix/main.cf
[root@kuplug ~]#
[root@kuplug ~]#
[root@kuplug ~]#
[root@kuplug ~]# /etc/init.d/postfix restart
Shutting down postfix: [ FAILED ]
Starting postfix: [ OK ]
[root@kuplug ~]# /etc/init.d/postfix restart
Shutting down postfix: [ OK ]
Starting postfix: [ OK ]
[root@kuplug ~]# chkconfig postfix on
[root@kuplug ~]#
```



5. Jika anda ingin mencoba apakah sudah jalan tau belum bisa gunakan cara di bawah. Kirim email menggunakan telnet . Install telnet “yum -y install telnet”

Masukkan perintah 1 per 1..

```
[root@kuplug ~]#  
[root@kuplug ~]#  
[root@kuplug ~]# telnet root@192.168.2.2 -p smtp  
telnet: invalid option -- p  
Usage: telnet [-8] [-E] [-L] [-S tos] [-a] [-c] [-d] [-e char] [-l user]  
        [-n tracefile] [-b hostalias ] [-r]  
        [host-name [port]]  
[root@kuplug ~]# telnet localhost smtp  
Trying 127.0.0.1...  
Connected to localhost.  
Escape character is '^]'.  
220 mail.kuplug.com ESMTP Postfix  
ehlo localhost  
250-mail.kuplug.com  
250-PIPELINING  
250-SIZE 10240000  
250-VERFY  
250-ETRN  
250-ENHANCEDSTATUSCODES  
250-8BITMIME  
250-DSN  
mail from:<userweb>  
250 2.1.0 OK  
rcpt to:<userweb>  
250 2.1.3 OK  
data  
354 End data with <CR><LF>.<CR><LF>  
percobaan smtp  
.  
250 2.0.0 Ok: queued as B06F92C684  
quit  
221 2.0.0 Bye  
Connection closed by foreign host.  
[root@kuplug ~]#
```


6. Dan lihat hasilnya. Check email.

```
.cache/          .gconfd/          .ICEauthority     Public/
.config/         .gnome2/          .imsettings.log   public_html/
.dbus/          .gnome2_private/ .local/           .pulse/
Desktop/        .gnote/           Maildir/          .pulse-cookie
[root@kuplug ~]# cd /home/userweb/M
Maildir/ Music/
[root@kuplug ~]# cd /home/userweb/M
Maildir/ Music/
[root@kuplug ~]# cd /home/userweb/Maildir/
[root@kuplug Maildir]# cd new/
[root@kuplug new]# dir
1370072436.Vfd02I200d2M611642.kuplug.com
[root@kuplug new]# cat 1370072436.Vfd02I200d2M611642.kuplug.com
Return-Path: <userweb@kuplug.com>
X-Original-To: userweb
Delivered-To: userweb@kuplug.com
Received: from localhost (localhost.localdomain [127.0.0.1])
        by mail.kuplug.com (Postfix) with ESMTP id 3971E2C677
        for <userweb>; Sat,  1 Jun 2013 14:38:31 +0700 (WIT)
Message-Id: <20130601074023.3971E2C677@mail.kuplug.com>
Date: Sat, 1 Jun 2013 14:38:31 +0700 (WIT)
From: userweb@kuplug.com
To: undisclosed-recipients:;

asik
[root@kuplug new]#
```

INSTALL DOVECOT

1. install dovecot *"yum -y install dovecot"*

```
[root@kuplug ~]# yum -y install dovecot
Loaded plugins: fastestmirror, refresh-packagekit, security
Loading mirror speeds from cached hostfile
* base: mirror.unej.ac.id
* extras: mirror.unej.ac.id
* updates: mirror.pregi.net
Setting up Install Process

```


2. "nano /etc/dovecot/dovecot.conf" hapus tanda "#" pada

```
# Default values are shown for each setting, it's not required to uncomment
# those. These are exceptions to this though: No sections (e.g. namespace {})
# or plugin settings are added by default, they're listed only as examples.
# Paths are also just examples with the real defaults being based on configure
# options. The paths listed here are for configure --prefix=/usr
# --sysconfdir=/etc --localstatedir=/var

# Protocols we want to be serving.
protocols = imap pop3 lmtp

# A comma separated list of IPs or hosts where to listen in for connections.
# "*" listens in all IPv4 interfaces, "::" listens in all IPv6 interfaces.
# If you want to specify non-default ports or anything more complex,
# edit conf.d/master.conf.
#listen = *, ::
```

3. selanjutnya buka file "nano /etc/dovecot/conf.d/10-auth.conf"

mail_location = maildir:~/Maildir ##baris 24 – hapus tanda "#"

```
#
# %u - username
# %n - user part in user@domain, same as %u if there's no domain
# %d - domain part in user@domain, empty if there's no domain
# %h - home directory
#
# See doc/wiki/Variables.txt for full list. Some examples:
#
mail_location = maildir:~/Maildir
# mail_location = mbox:~/mail:INBOX=/var/mail/%u
# mail_location = mbox:/var/mail/%d/%ln/%n:INDEX=/var/indexes/%d/%ln/%n
#
# <doc/wiki/MailLocation.txt>
#
#mail_location =

# If you need to set multiple mailbox locations or want to change default
# namespace settings, you can do it by defining namespace sections.
```



4. masih di file "nano /etc/dovecot/conf.d/10-auth.conf"

`disable_plaintext_auth = no` ##baris 9 – hapus "#" dan rubah dari yes ke no.

```
## Authentication processes
##

# Disable LOGIN command and all other plaintext authentications unless
# SSL/TLS is used (LOGINDISABLED capability). Note that if the remote IP
# matches the local IP (ie. you're connecting from the same computer), the
# connection is considered secure and plaintext authentication is allowed.
disable_plaintext_auth = no      #hilangkan pager dan ganti no

# Authentication cache size (e.g. 10M). 0 means it's disabled. Note that
# bsdauth, PAM and vpopmail require cache_key to be set for caching to be used.
#auth_cache_size = 0
# Time to live for cached data. After TTL expires the cached record is no
# longer used, *except* if the main database lookup returns internal failure.
# We also try to handle password changes automatically: If user's previous
# authentication was successful, but this one wasn't, the cache isn't used.
# For now this works only with plaintext authentication.
#auth_cache_ttl = 1 hour
# TTL for negative hits (user not found, password mismatch).
# 0 disables caching them completely.
```

5. Masih di file "10-auth.conf"

`auth_mechanisms = plain login` ##baris 97 – tambahkan text "login"

```
# Take the username from client's SSL certificate, using
# X509_NAME_get_text_by_NID() which returns the subject's DN's
# CommonName.
#auth_ssl_username_from_cert = no

# Space separated list of wanted authentication mechanisms:
# plain login digest-md5 cram-md5 ntlm rpa apop anonymous gssapi otp skey
# gss-spnego
# NOTE: See also disable_plaintext_auth setting.
auth_mechanisms = plain login

##
## Password and user databases
##

#
# Password database is used to verify user's password (and nothing more).
# You can have multiple passdbs and userdbs. This is useful if you want to
# allow both system users (/etc/passwd) and virtual users to login without
# duplicating the system users into virtual database.
#
```

6. Simpan file yang tadi sekarang pindah ke file `"/etc/dovecot/conf.d/10-master.conf"`

cari file `user = postfix` dan `group = postfix` ##pada baris 83 dan 84 hapus `"#"`

```
}

service pop3 {
    # Max. number of POP3 processes (connections)
    #process_limit = 1024
}

service auth {
    # auth_socket_path points to this userdb socket by default. It's typically
    # used by dovecot-lda, doveadm, possibly imap process, etc. Its default
    # permissions make it readable only by root, but you may need to relax these
    # permissions. Users that have access to this socket are able to get a list
    # of all usernames and get results of everyone's userdb lookups.
    unix_listener auth-userdb {
        #mode = 0600
        user = postfix
        group = postfix
    }

    # Postfix smtp-auth
    #unix_listener /var/spool/postfix/private/auth {
    #    mode = 0666
    #}
}
```

7. jalankan postfix dan aktifkan saat startup

```
[root@kuplug ~]#
[root@kuplug ~]#
[root@kuplug ~]#
[root@kuplug ~]# /etc/init.d/dovecot restart
Stopping Dovecot Imap: [FAILED]
Starting Dovecot Imap: [ OK ]
[root@kuplug ~]# /etc/init.d/dovecot restart
Stopping Dovecot Imap: [ OK ]
Starting Dovecot Imap: [ OK ]
[root@kuplug ~]# chkconfig dovecot on
[root@kuplug ~]#
```



8.coba di "telnet localhost pop3"

```
[root@kuplug ~]# telnet localhost pop3
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
+OK Dovecot ready.
user userweb
+OK
pass kambing
+OK Logged in.
list
+OK 3 messages:
1 432
2 438
3 442
.
retr 1
+OK 432 octets
Return-Path: <userweb@kuplug.com>
X-Original-To: userweb
Delivered-To: userweb@kuplug.com
Received: from localhost (localhost.localdomain [127.0.0.1])
        by mail.kuplug.com (Postfix) with ESMTP id 3971E2C677
        for <userweb>; Sat,  1 Jun 2013 14:38:31 +0700 (WIT)
Message-Id: <20130601074023.3971E2C677@mail.kuplug.com>
Date: Sat,  1 Jun 2013 14:38:31 +0700 (WIT)
From: userweb@kuplug.com
To: undisclosed-recipients;;

asik
.
quit
+OK Logging out.
Connection closed by foreign host.
[root@kuplug ~]#
```



9. WEB Mail

Web Mail adalah email-client yang menggunakan halaman Web sebagai media untuk mengelola email dari sisi client. Salah satu contohnya adalah Squirrelmail.

1. Instalasi "yum --enablerepo=epel -y install squirrelmail" install dari repo epel.

2. pindah kedirektori "*cd /usr/share/squirrelmail/config/*"

3. jalankan konfigurasi "*./conf.pl*"

```
[root@kuplug config]# ./conf.pl
```

4. Dan pilih "Server Settings" tekan 2

```
SquirrelMail Configuration : Read: config.php (1.4.0)
-----
Main Menu --
1. Organization Preferences
2. Server Settings
3. Folder Defaults
4. General Options
5. Themes
6. Address Books
7. Message of the Day (MOTD)
8. Plugins
9. Database
10. Languages

D. Set pre-defined settings for specific IMAP servers

C Turn color off
S Save data
Q Quit

Command >> 2
```

5. rubahlan nama domain. Pilih 1 dan masukkan domain.

```
-----
Server Settings

General
-----
1. Domain                : example.com
2. Invert Time           : false
3. Sendmail or SMTP      : Sendmail

A. Update IMAP Settings  : localhost:143 (uw)
B. Change Sendmail Config : /usr/sbin/sendmail

R Return to Main Menu
C Turn color off
S Save data
Q Quit

Command >> 1

The domain name is the suffix at the end of all email addresses. If
for example, your email address is jdoe@example.com, then your domain
would be example.com.

[example.com]: kuplug.com
```

6. Selanjutnya pilih A

```
SquirrelMail Configuration : Read: config.php (1.4.0)
-----
Server Settings

General
-----
1. Domain                : kuplug.com
2. Invert Time           : false
3. Sendmail or SMTP      : Sendmail

A. Update IMAP Settings  : localhost:143 (uw)
B. Change Sendmail Config : /usr/sbin/sendmail

R Return to Main Menu
C Turn color off
S Save data
Q Quit

Command >> A
```



7. Pilih 8.

```
General
-----
1. Domain           : kuplug.com
2. Invert Time      : false
3. Sendmail or SMTP : Sendmail

IMAP Settings
-----
4. IMAP Server      : localhost
5. IMAP Port        : 143
6. Authentication type : login
7. Secure IMAP (TLS) : false
8. Server software  : uw
9. Delimiter        : /

B. Change Sendmail Config : /usr/sbin/sendmail
H. Hide IMAP Server Settings

R Return to Main Menu
C Turn color off
S Save data
Q Quit

Command >> 8
```

8. Rubah Server mailnya/IMAP menjadi dovecot.

```
C Turn color off
S Save data
Q Quit

Command >> 8

Each IMAP server has its own quirks. As much as we tried to stick
to standards, it doesn't help much if the IMAP server doesn't follow
the same principles. We have made some work-arounds for some of
these servers. If you would like to use them, please select your
IMAP server. If you do not wish to use these work-arounds, you can
set this to "other", and none will be used.
bincimap    = Binc IMAP server
courier     = Courier IMAP server
cyrus       = Cyrus IMAP server
dovecot     = Dovecot Secure IMAP server
exchange    = Microsoft Exchange IMAP server
hmailserver = hMailServer
macosx      = Mac OS X Mailserver
mercury32   = Mercury/32
uw          = University of Washington's IMAP server
gmail       = IMAP access to Google mail (Gmail) accounts
other       = Not one of the above servers
[uw]: dovecot
```


9. Simpan data menggunakan "s"

```
General
-----
1. Domain           : kuplug.com
2. Invert Time      : false
3. Sendmail or SMTP : Sendmail

IMAP Settings
-----
4. IMAP Server      : localhost
5. IMAP Port        : 143
6. Authentication type : login
7. Secure IMAP (TLS) : false
8. Server software   : dovecot
9. Delimiter        : /

B. Change Sendmail Config : /usr/sbin/sendmail
H. Hide IMAP Server Settings

R Return to Main Menu
C Turn color off
S Save data
Q Quit

Command >> s
```

10. Dan keluar. "q"

```
General
-----
1. Domain           : kuplug.com
2. Invert Time      : false
3. Sendmail or SMTP : Sendmail

IMAP Settings
-----
4. IMAP Server      : localhost
5. IMAP Port        : 143
6. Authentication type : login
7. Secure IMAP (TLS) : false
8. Server software   : dovecot
9. Delimiter        : /

B. Change Sendmail Config : /usr/sbin/sendmail
H. Hide IMAP Server Settings

R Return to Main Menu
C Turn color off
S Save data
Q Quit

Command >> q
```



11. Selanjutnya buka file "nano /etc/httpd/conf/httpd.conf"

```
7. Secure IMAP (TLS)      : false
8. Server software       : dovecot
9. Delimiter              : /

B. Change Sendmail Config : /usr/sbin/sendmail
H. Hide IMAP Server Settings

R Return to Main Menu
C Turn color off
S Save data
Q Quit

Command >> q

Exiting conf.pl.
You might want to test your configuration by browsing to
http://your-squirrelmail-location/src/configtest.php
Happy SquirrelMailing!

[root@kuplug config]#
[root@kuplug config]#
[root@kuplug config]#
[root@kuplug config]# nano /etc/httpd/conf/httpd.conf
```

12. dan tambahkan seperti gambar.

```
Alias /webmail /usr/share/squirrelmail
<Directory /usr/share/squirrelmail>
    Options Indexes FollowSymLinks
    RewriteEngine On
    AllowOverride All
    DirectoryIndex index.php
    Order allow,deny
    Allow from all
</Directory>
"/etc/httpd/conf/httpd.conf" 1024L, 34563C 1024,12 Bot
```

13.restart httpd nya. /etc/init.d/httpd restart

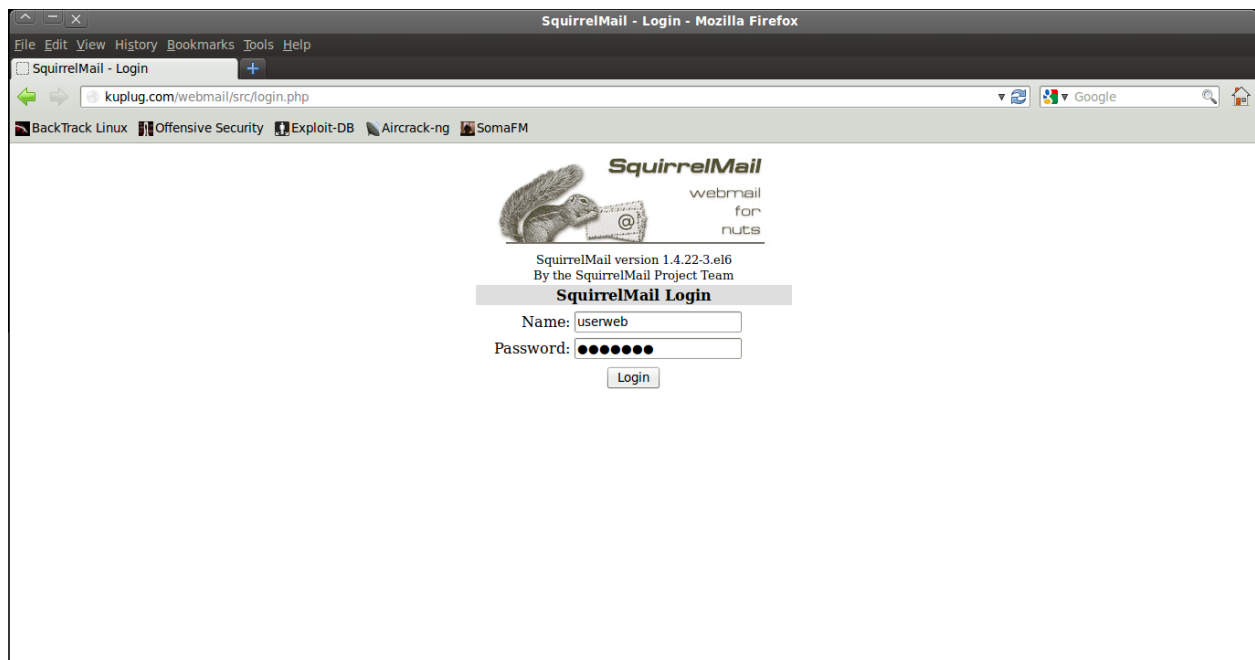
```
H. Hide IMAP Server Settings
R Return to Main Menu
C Turn color off
S Save data
Q Quit

Command >> q

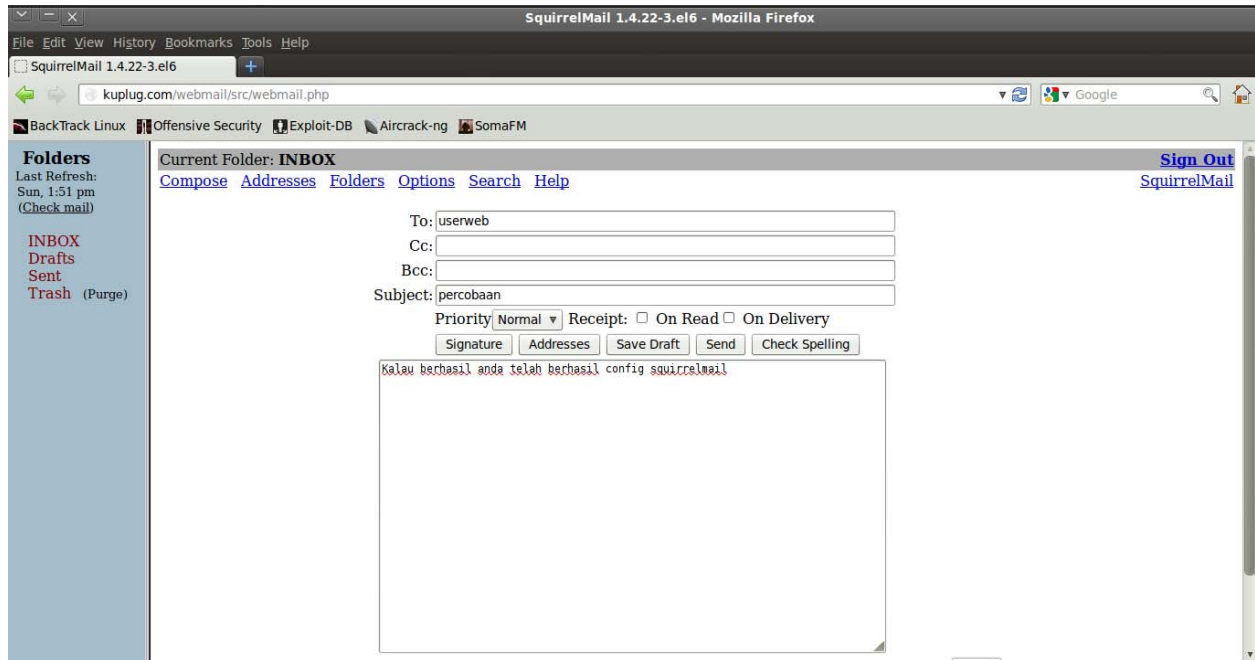
Exiting conf.pl.
You might want to test your configuration by browsing to
http://your-squirrelmail-location/src/configtest.php
Happy SquirrelMailing!

[root@kuplug config]#
[root@kuplug config]#
[root@kuplug config]# nano /etc/httpd/conf/httpd.conf
[root@kuplug config]# vim /etc/httpd/conf/httpd.conf
[root@kuplug config]#
[root@kuplug config]#
[root@kuplug config]#
[root@kuplug config]# /etc/init.d/httpd restart
```

14. Sekarang pindah ke client dengan mengetikkan <http://domain/webmail>
contoh: kuplug.com/webmail



15. Dan kirimlah email ke client lain maupun ke client sendiri. Selesai



10. Database Server

Cara instalasi Mysl.

1. `yum -y install mysql-server`
2. `/etc/rc.d/init.d/mysqld start`
3. `chkconfig mysqld on`
4. `mysql -u root`

Sekarang beri password kepada root

```
set password for root@localhost=password('password');
```

```
set password for root@'127.0.0.1'=password('password');
```

```
set password for root@'kupilug.com'=password('password');
```

5. Hapus User anonim

```
delete from mysql.user where user="";
```

dan keluar

```
exit;
```

6. dan cara menjalankannya adalah `"mysql -u root -p"`

7. install phpmyadmin `"yum --enablerepo=epel -y install phpMyAdmin php-mysql php-mcrypt"` install dari repo epel

8. masuk ke file `"nano /etc/httpd/conf.d/phpMyAdmin.conf"`

baris 14: tambahkan ip address yang diizinkan

Allow from 127.0.0.1 192.168.2.0/24

9. reload httpd `"/etc/rc.d/init.d/httpd reload"`

11. NTP Server

NTP atau disebut juga Network Time Protocol adalah aplikasi layanan dari server untuk melakukan sinkronisasi waktu dengan client-clientnya. Sehingga waktu client dan servernya seragam

1. install ntp `yum -y install ntp`

2. `nano /etc/ntp.conf`

Baris ke 19 tambahkan ip yang kita izinkan untuk menjadi client ntp contoh `"restrict 192.168.1.0/24 mask 255.255.255.0 nomodify notrap"`

```
# For more information about this file, see the man pages
# ntp.conf(5), ntp_acc(5), ntp_auth(5), ntp_clock(5), ntp_misc(5), ntp_mon(5).

driftfile /var/lib/ntp/drift

# Permit time synchronization with our time source, but do not
# permit the source to query or modify the service on this system.
restrict default kod nomodify notrap nopeer noquery
restrict -6 default kod nomodify notrap nopeer noquery

# Permit all access over the loopback interface. This could
# be tightened as well, but to do so would effect some of
# the administrative functions.
restrict 127.0.0.1
restrict -6 ::1

# Hosts on local network are less restricted.
#restrict 192.168.1.0 mask 255.255.255.0 nomodify notrap
restrict 192.168.1.0 mask 255.255.255.0 nomodify notrap
# Use public servers from the pool.ntp.org project.
# Please consider joining the pool (http://www.pool.ntp.org/join.html).
server 0.centos.pool.ntp.org
server 1.centos.pool.ntp.org
-- INSERT --
```

19,56

Top

3. *tambahkan # pada server default ntp dan tambahkan server ntp indonesia*

```
restrict 127.0.0.1
restrict -6 ::1

# Hosts on local network are less restricted.
#restrict 192.168.1.0 mask 255.255.255.0 nomodify notrap
restrict 192.168.1.0 mask 255.255.255.0 nomodify notrap
# Use public servers from the pool.ntp.org project.
# Please consider joining the pool (http://www.pool.ntp.org/join.html).
#server 0.centos.pool.ntp.org
#server 1.centos.pool.ntp.org
#server 2.centos.pool.ntp.org
server 0.id.pool.ntp.org
server 1.id.pool.ntp.org
server 2.id.pool.ntp.org
server 3.id.pool.ntp.org

#broadcast 192.168.1.255 autokey          # broadcast server
#broadcastclient                          # broadcast client
#broadcast 224.0.1.1 autokey              # multicast server
#multicastclient 224.0.1.1                # multicast client
E486: Pattern not found: asdadadfasdf      29,0-1      31%
```

4. *restart ntp “/etc/init.d/ntpd start” dan dan jalankan star up “chkconfig ntpd on”*

5. *ntpq -p*

```
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# ntpq -p
      remote               refid              st t when poll reach  delay  offset  jitter
=====
kartolo.sby.dat 118.143.17.82      2 u   50   64    1  29.655 -252042  0.001
toliman.radsby. 122.252.64.119     3 u   49   64    1  69.613 -252042  0.001
31.169.iconpln. 203.89.31.13       3 u   48   64    1  19.236 -252042  0.001
rigel.radsby.ne 66.228.35.252      3 u   47   64    1  31.150 -252042  0.001
[root@localhost ~]#
```

6. *Selesai*

12. Mengaktifkan APC

Mengaktifkan APC (Alternative PHP Cache) dan membuat php lebih cepat.

1. `yum -y install php-pecl-apc`
2. `nano /etc/php.d/apc.ini`

Pada bairs 11 , tubah shared memory contoh 512mb

```
; Enable apc extension module
extension = apc.so

; Options for the APC module version >= 3.1.3
; See http://www.php.net/manual/en/apc.configuration.php

; This can be set to 0 to disable APC.
apc.enabled=1
; The number of shared memory segments to allocate for the compiler cache.
apc.shm_segments=1
; The size of each shared memory segment, with M/G suffix
apc.shm_size=512M
; A "hint" about the number of distinct source files that will be included or
; requested on your web server. Set to zero or omit if you are not sure;
apc.num_files_hint=1024
; Just like num_files_hint, a "hint" about the number of distinct user cache
; variables to store. Set to zero or omit if you are not sure;
apc.user_entries_hint=4096
; The number of seconds a cache entry is allowed to idle in a slot in case this
; cache entry slot is needed by another entry.
apc.ttl=7200
; use the SAPI request start time for TTL
apc.use_request_time=1
-- INSERT --
```

12,17

Top

3. restart httpd

```
Transaction Summary
=====
Install      1 Package(s)

Total download size: 96 k
Installed size: 310 k
Downloading Packages:
php-pecl-apc-3.1.9-2.el6.i686.rpm           | 96 kB      00:00
Running rpm check debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing : php-pecl-apc-3.1.9-2.el6.i686      1/1
  Verifying  : php-pecl-apc-3.1.9-2.el6.i686      1/1

Installed:
php-pecl-apc.i686 0:3.1.9-2.el6

Complete!
[root@kuplug ~]# vim /etc/php.d/apc.ini
[root@kuplug ~]# /etc/init.d/httpd restart
Stopping httpd:                                     [ OK ]
Starting httpd:                                     [ OK ]
[root@kuplug ~]#
```

4. Buat folder di `"mkdir /var/www/html/apc/"`

5. kopi script web yang ada di `"cp /usr/share/doc/php-pecl-apc-*/apc.php /var/www/html/apc"`

6. Buat user interface cachanya `"nano /var/www/html/apc/apc.conf.php"`

```
<?php
defaults('ADMIN_USERNAME','admin');
defaults('ADMIN_PASSWORD','kuplug');
?>

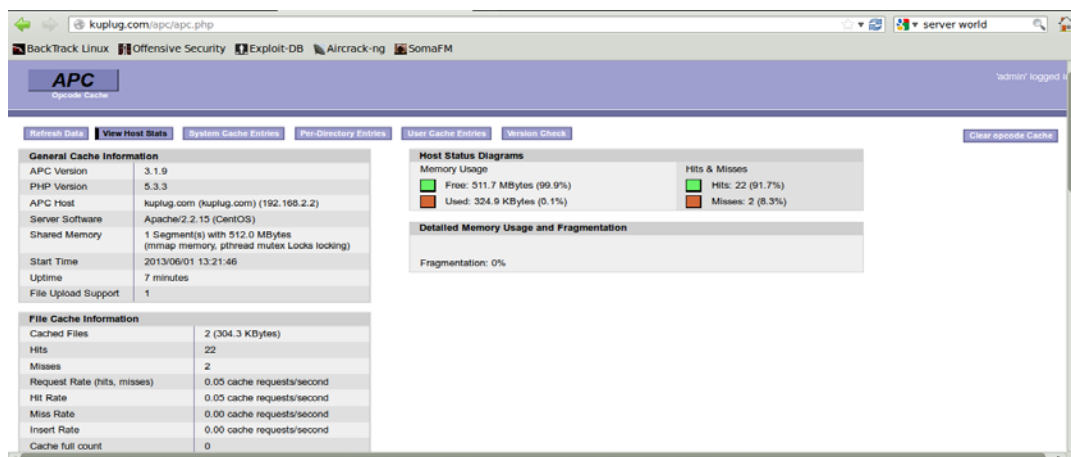
-- INSERT --                                     5,1      All
```


6. Buat web directorinya “nano /var/www/html/apc.conf”

```
<Directory /var/www/html/apc>
  Order Deny,Allow
  Deny from all
  Allow from 127.0.0.1 192.168.2.0/24
</Directory>
```

7. restart kembali httpd “/etc/init.d/httpd restart dan jalankan di client” dan anda juga bisa login sebagai user yang telah anda buat sebelumnya.

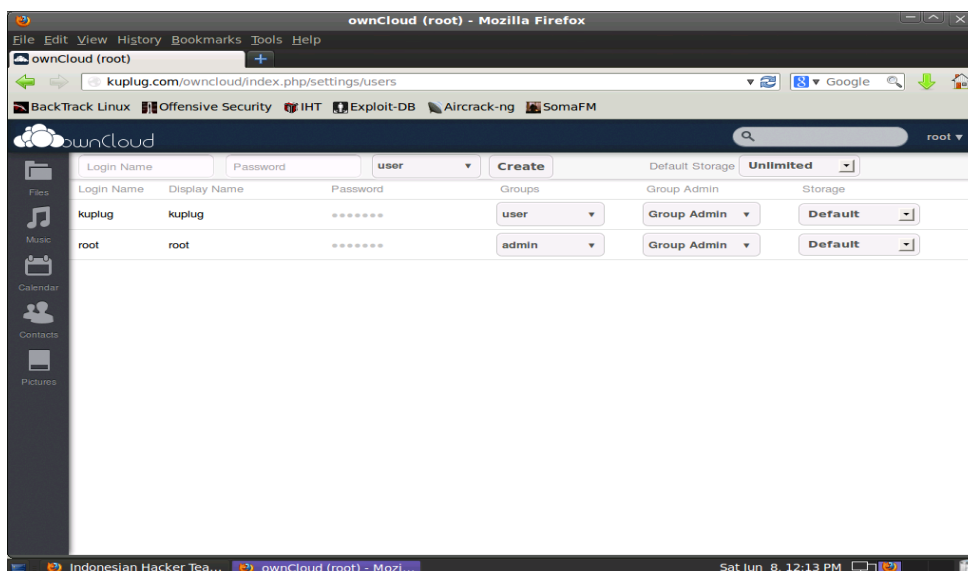
8. Di client masukkan “http://kuplug.com/apc/apc.php”



13. Owncloud

Cloud Computing sederhana menggunakan owncloud. Apa yang bisa kita lakukan dengan owncloud. Manajemen kerja dengan tanggal di owncloud. Anda bisa memutar musik lewat cloud . Media penyimpanan data, sharing gambar , dan lain-lain.

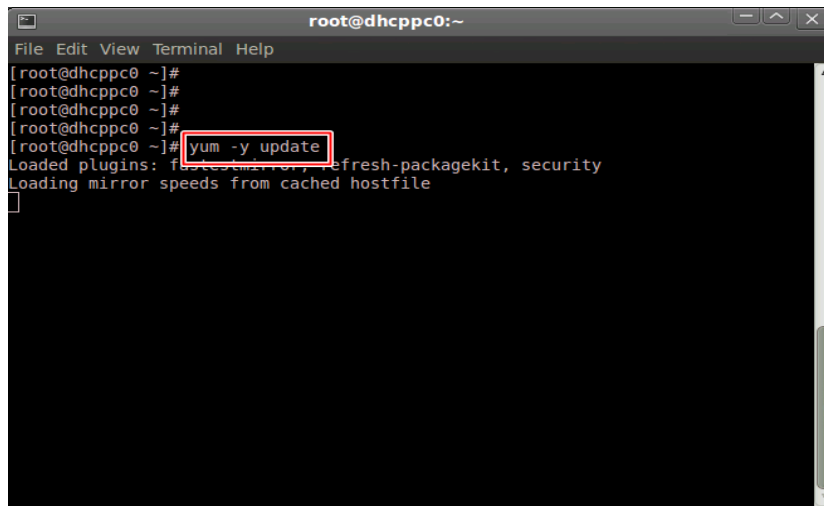
1. install owncloud melalui repo epel "yum --enablerepo=epel install php-pear-MDB2-Driver-mysqli php-pear-Net-Curl".
2. Download repo owncloudnya "wget http://download.opensuse.org/repositories/isv:ownCloud:community/CentOS_CentOS-6/isv:ownCloud:community.repo -P /etc/yum.repos.d"
3. install owncloud "yum -y install owncloud".
4. Restart httpd "/etc/init.d/httpd restart"
5. Sekarang tinggal di client buat "<http://kuplug.com/owncloud/>".
6. Buat user admin dan password admin. Selesai



14. Instalasi Asterisk (VOIP)

1. CentOS Updates

yum -y update

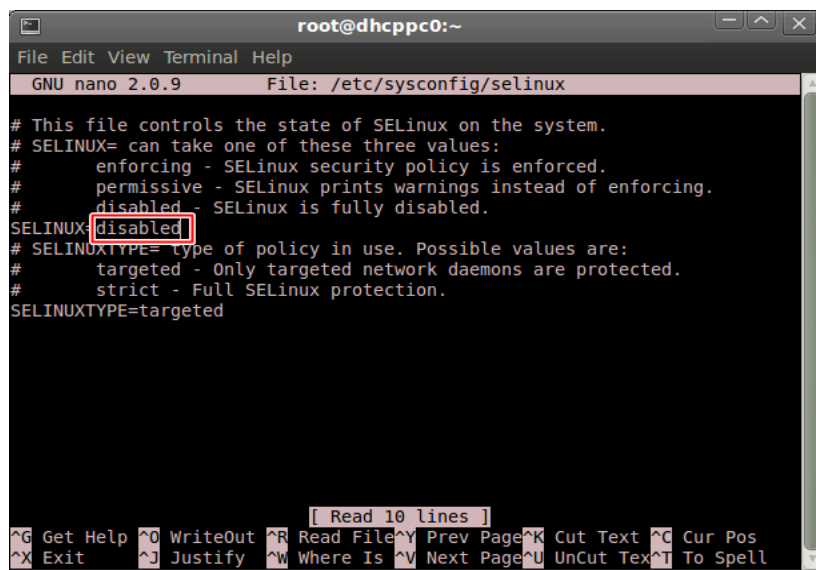
A terminal window titled 'root@dhcppc0:~' with a menu bar (File, Edit, View, Terminal, Help). The command 'yum -y update' is entered and highlighted with a red box. Below it, the output shows 'Loaded plugins: fastestmirror, refresh-packagekit, security' and 'Loading mirror speeds from cached hostfile'.

```
root@dhcppc0:~  
File Edit View Terminal Help  
[root@dhcppc0 ~]#  
[root@dhcppc0 ~]#  
[root@dhcppc0 ~]#  
[root@dhcppc0 ~]# yum -y update  
Loaded plugins: fastestmirror, refresh-packagekit, security  
Loading mirror speeds from cached hostfile
```

2. Disabling SELinux

nano /etc/sysconfig/selinux

dan lihat pada gambar

A terminal window titled 'root@dhcppc0:~' showing the nano editor editing '/etc/sysconfig/selinux'. The file content includes instructions for SELinux states and types. The word 'disabled' is highlighted with a red box. The bottom status bar shows '[Read 10 lines]' and various navigation shortcuts.

```
root@dhcppc0:~  
File Edit View Terminal Help  
GNU nano 2.0.9 File: /etc/sysconfig/selinux  
# This file controls the state of SELinux on the system.  
# SELINUX= can take one of these three values:  
#   enforcing - SELinux security policy is enforced.  
#   permissive - SELinux prints warnings instead of enforcing.  
#   disabled - SELinux is fully disabled.  
SELINUX=disabled  
# SELINUXTYPE= type of policy in use. Possible values are:  
#   targeted - Only targeted network daemons are protected.  
#   strict - Full SELinux protection.  
SELINUXTYPE=targeted  
[ Read 10 lines ]  
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos  
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

3. Reboot

reboot

4. install paket yang dibutuhkan

```
yum install -y make wget openssl-devel ncurses-devel newt-devel libxml2-  
devel kernel-devel gcc gcc-c++ sqlite-devel
```

5. Downloading Asterisk Source Code

Sebelumnya pindah dulu ke directory `/usr/src/`

```
cd /usr/src/
```

Download asterisk dan library lain yang dibutuhkan:

```
wget http://downloads.asterisk.org/pub/telephony/dahdi-linux-  
complete/dahdi-linux-complete-current.tar.gz
```

```
wget http://downloads.asterisk.org/pub/telephony/libpri/libpri-1.4-  
current.tar.gz
```

```
wget http://downloads.asterisk.org/pub/telephony/asterisk/asterisk-11-  
current.tar.gz
```

6. Extraction of Downloaded Files

```
tar zxvf dahdi-linux-complete-current.tar.gz
```

```
tar zxvf libpri-1.4-current.tar.gz
```

```
tar zxvf asterisk-11-current.tar.gz
```

7. DAHDI Installation

```
cd /usr/src/dahdi-linux-complete-2.5.0+2.5.0
```

```
make && make install && make config
```

8. LibPRI Installation

```
cd ../libpri-1.4.14/
```

```
make && make install
```

9. Change Asterisk Directory

```
cd ../asterisk-1.8.5.0
```

10. Run Configure Script for Asterisk

Di poin ini anda perlu mengetahui arsitektur dari chentos anda apakah i86
ataukah 64 bit yaitu dengan cara memasukkan perintah :

```
uname -a
```

untuk 32 bit maka akan muncul

```
2.6.18-238.12.1.el5 #1 SMP Tue May 31 13:23:01 EDT 2011 i686 i686 i386  
GNU/Linux
```

untuk 64 maka akan muncul

```
2.6.18-238.19.1.el5 #1 SMP Fri Jul 15 07:31:24 EDT 2011 x86_64 x86_64 x86_64  
GNU/Linux
```

untuk 32 bit masukkan config

```
./configure && make menuselect && make && make install
```

atau 64 pilih yang ini

```
./configure --libdir=/usr/lib64 && make menuselect && make && make install
```

Dan jangan lupa memasukkan kode negara 62

11. Install Sample Files

make samples

untuk instalasi asterisk menggunakan perintah ini

make config

12. Start DAHDI & asterisk

/etc/init.d/dahdi start

/etc/init.d/asterisk start

dan

masukkan ke start up

chkconfig dahdi on

chkconfig asterisk on

Instalasi Asterisk Debian 6

1. Debian Updates

`apt-get update && apt-get upgrade`

2. Instalasi Asterisk

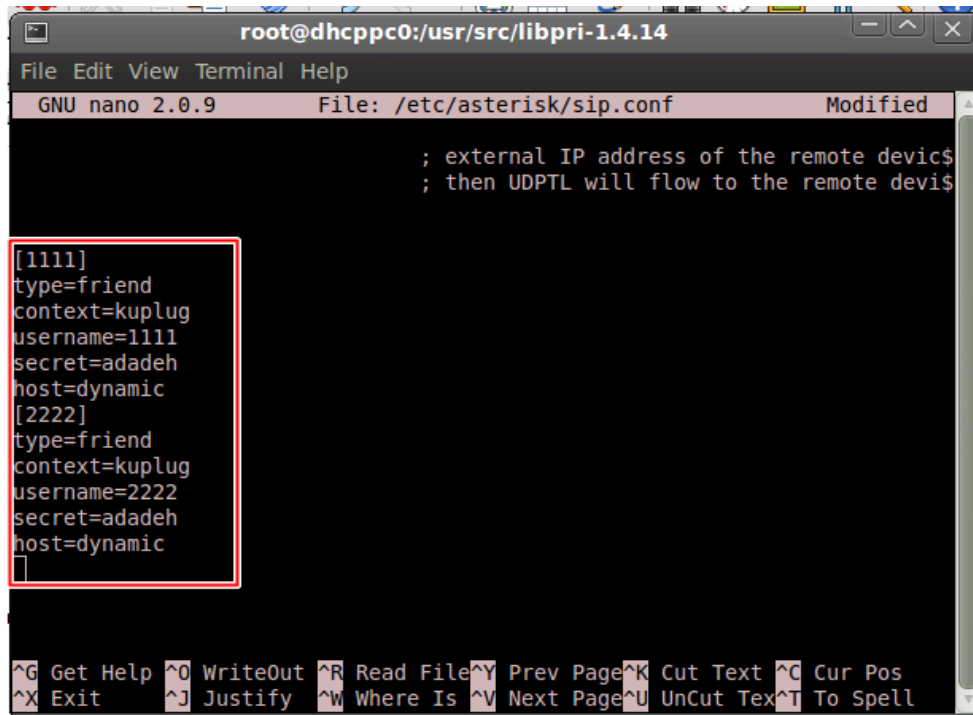
`Apt-get install asterisk`

Masukkan kode Negara 62

Konfigurasi Asterisk

1. Konfigurasi Nomor User.

Nano /etc/asterisk/sip.conf



```
root@dhcpc0:/usr/src/libpri-1.4.14
File Edit View Terminal Help
GNU nano 2.0.9 File: /etc/asterisk/sip.conf Modified

; external IP address of the remote device$
; then UDPTL will flow to the remote devi$

[1111]
type=friend
context=kuplug
username=1111
secret=adadeh
host=dynamic
[2222]
type=friend
context=kuplug
username=2222
secret=adadeh
host=dynamic
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Tex ^T To Spell
```

[1111] adalah nomer telpon yang akan di gunakan client nantinya.

Type=friend adalah penjelasan terhadap nomer telpon tersebut

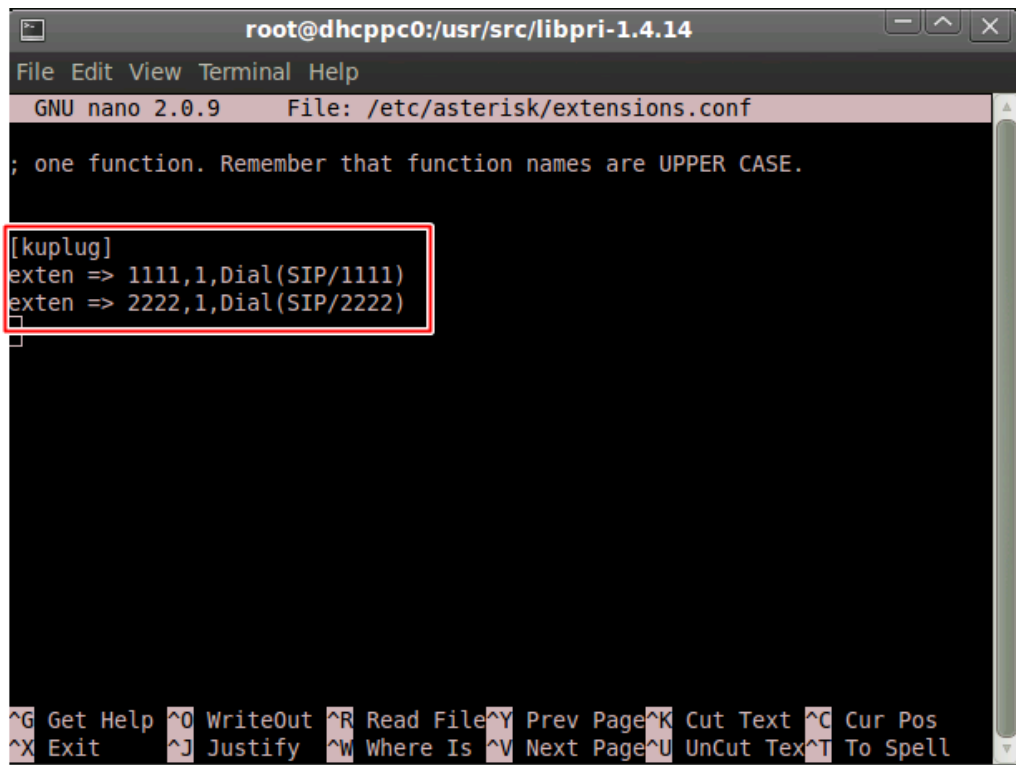
context= adalah grup pembuatan dial up yang akan digunakan kedalam extensions.conf

username= adalah konfigurasi username client /id client

secret=password untuk authenticasi client menggunakan password dan username.

Host= ip yang akan di tujukan buat saja dynamic

2. Konfigurasi dial Up User.



The screenshot shows a terminal window with the title `root@dhcppc0:/usr/src/libpri-1.4.14`. The window is running the `GNU nano 2.0.9` editor, editing the file `/etc/asterisk/extensions.conf`. The content of the file is as follows:

```
; one function. Remember that function names are UPPER CASE.  
  
[kuplug]  
exten => 1111,1,Dial(SIP/1111)  
exten => 2222,1,Dial(SIP/2222)  
  
[
```

The lines `[kuplug]`, `exten => 1111,1,Dial(SIP/1111)`, and `exten => 2222,1,Dial(SIP/2222)` are highlighted with a red rectangular box. The bottom of the window shows the nano editor's status bar with various keyboard shortcuts.

Penerusan yang akan dilakukan server jika ada panggilan ke 1111 maka ia akan meneruskan ke 1111 dengan menggunakan signaling SIP

restart asterisk `/etc/init.d/asterisk restart`

Voip Client di Android

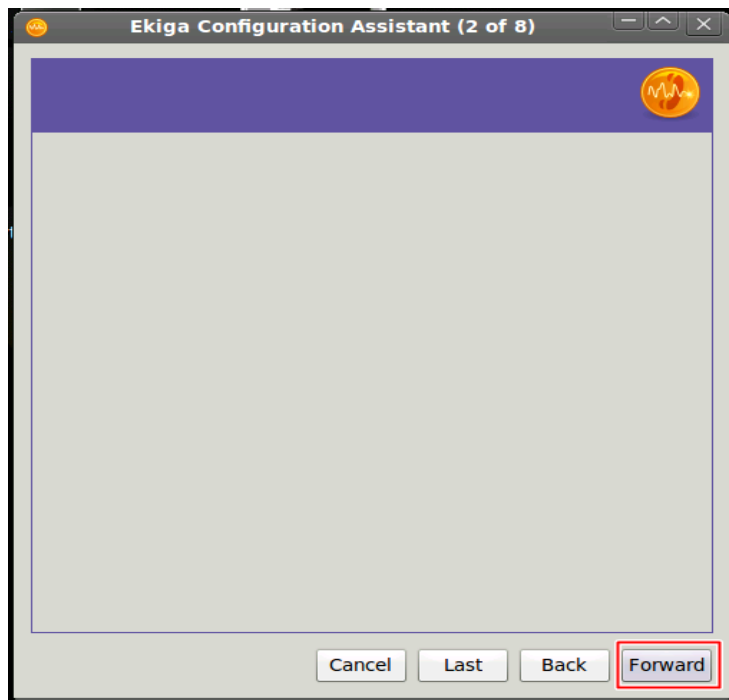
1. Install package 3XCPhone voip client dari play store
2. Buka voip client

klik menu, profile , add menu dan setting seperti berikut sesuaikan dengan setting di sip config tadi



Voip Client di Linux

1. Install ekiga menggunakan ubuntu software centre atau download di website resminya.
2. Konfig seperti gambar



Ekiga Configuration Assistant (4 of 8)

Ekiga Call Out Account

Please enter your account ID:

Please enter your PIN code:

You can make calls to regular phones and cell numbers worldwide using Ekiga.

To enable this, you need to do two things:

- First buy an account at the URL below.
- Then enter your account ID and PIN code.

The service will work only if your account is created using the URL in this dialog.

[Get an Ekiga Call Out account](#)

[Recharge the account](#)

[Consult the balance history](#)

[Consult the calls history](#)

☒ I do not want to sign up for the Ekiga Call Out service

Cancel Last Back Forward

Ekiga Configuration Assistant (5 of 8)

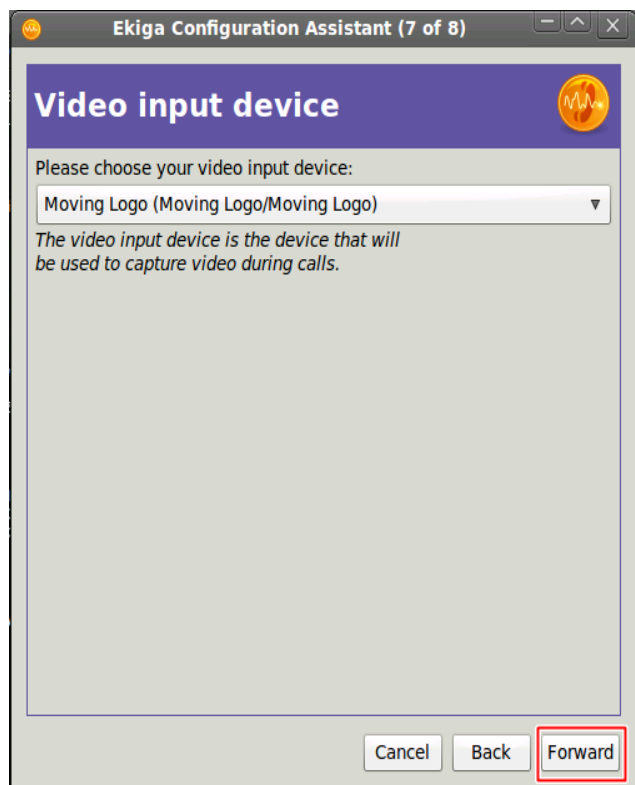
Connection Type

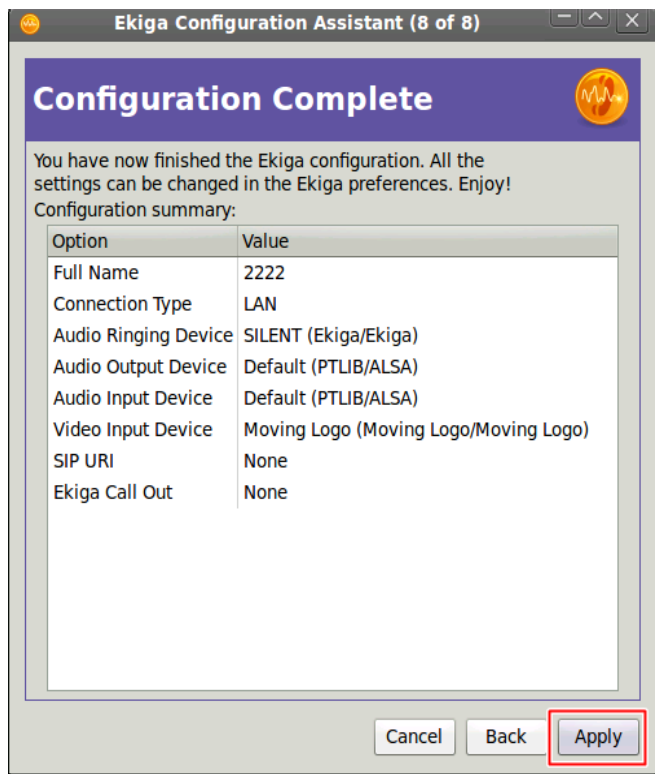
Please choose your connection type:

LAN

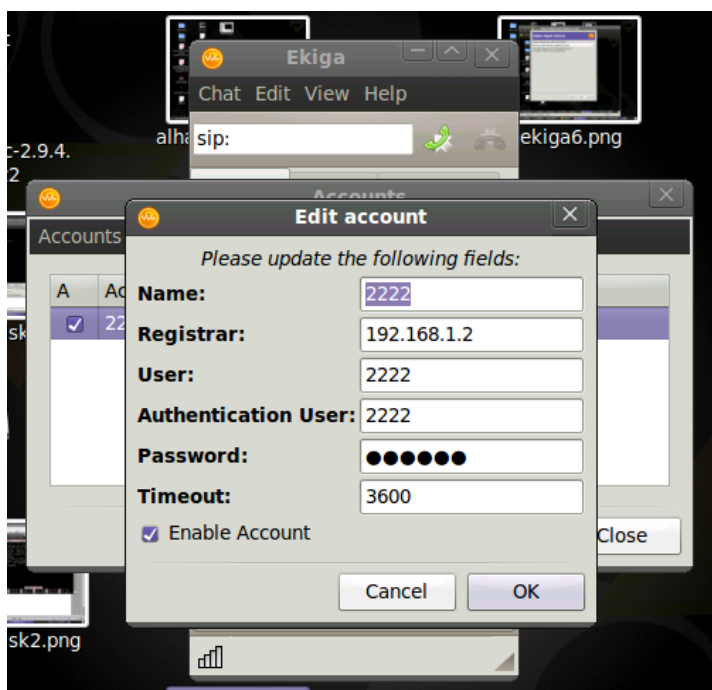
The connection type will permit determining the best quality settings that Ekiga will use during calls. You can later change the settings individually in the preferences window.

Cancel Last Back Forward



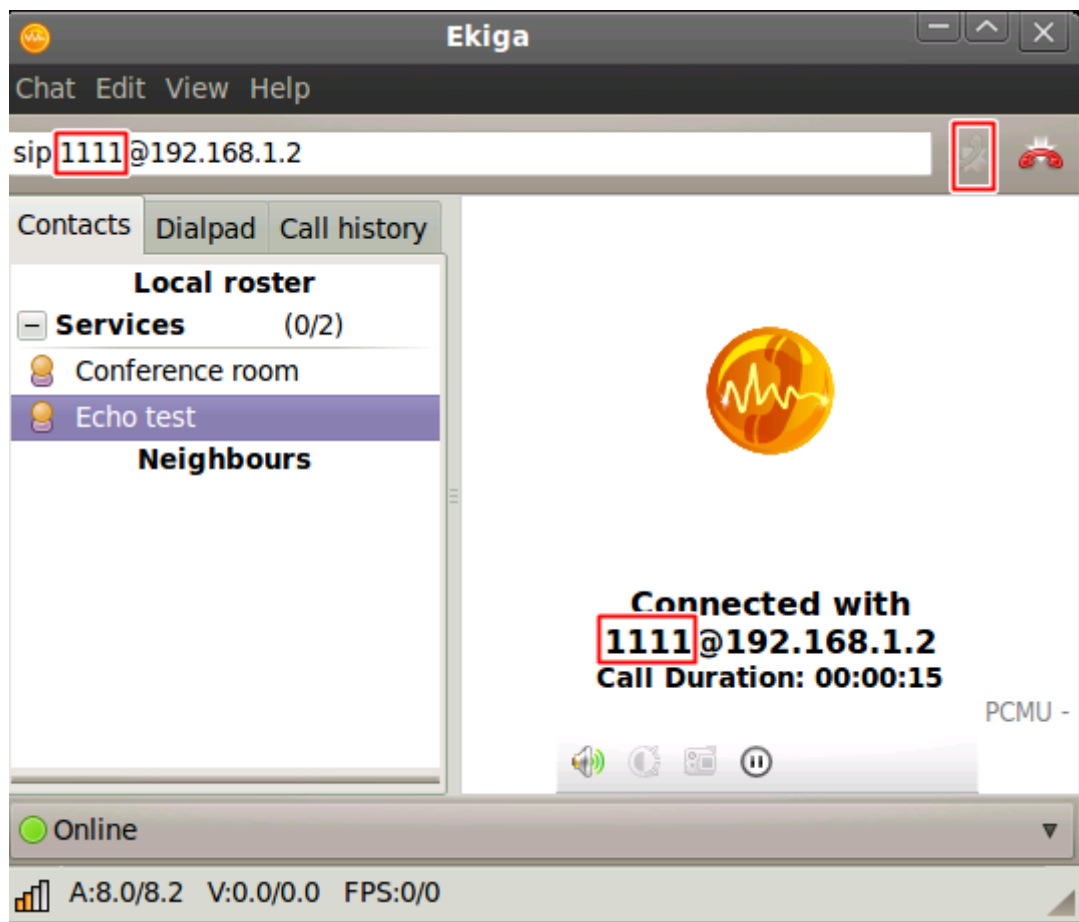


nah ini adalah bagian paling penting masuk ke menu edit >> edit account >> dan edit seperti di gambar



Terakhir adalah tes telpon masukkan nomer telpon di android anda klik call..

dan selesai



SUMBER & REFERENSI

<http://thinkxfree.wordpress.com>

<http://kisahpemimpi.blogspot.com>

<http://www.server-world.info/en>

<http://id.wikipedia.org/>

<http://www.voip-info.org/wiki/view/Asterisk+1.1+Installation+on+CentOS+6>

KUPLUG

Komunitas Pengguna Linux Gunadarma

