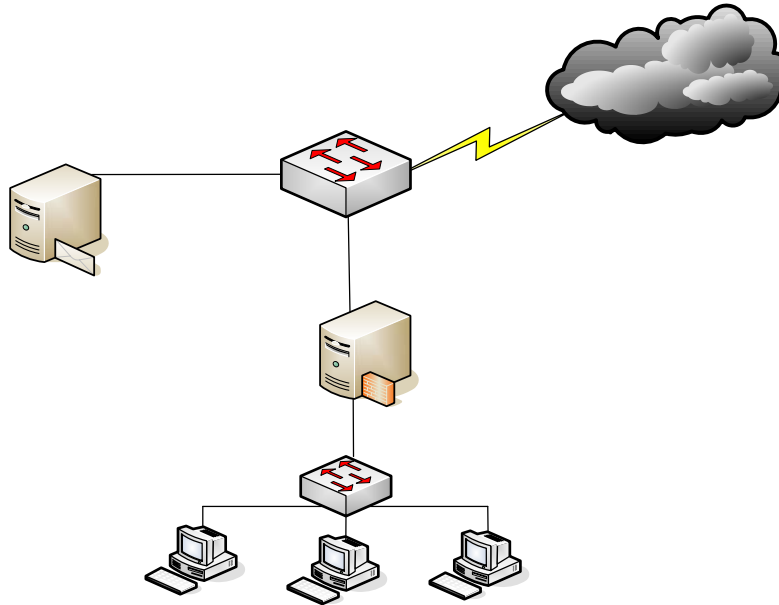
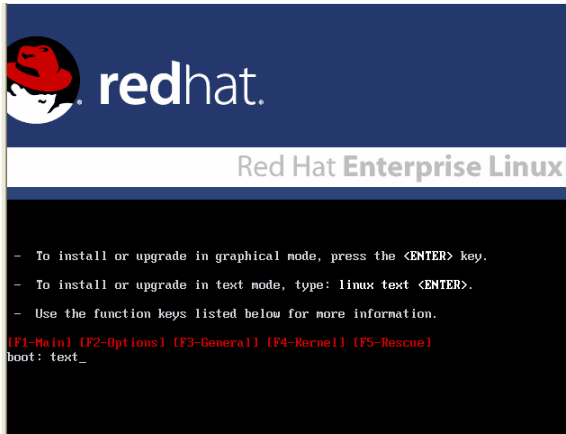


MEMBANGUN WEB SERVER, E-MAIL SERVER DAN FTP SERVER, SHARING INTERNET, PROXY SERVER, MENGGUNAKAN LINUX RHEL 4 DALAM JARINGAN LOKAL



Instalasi RHEL 4



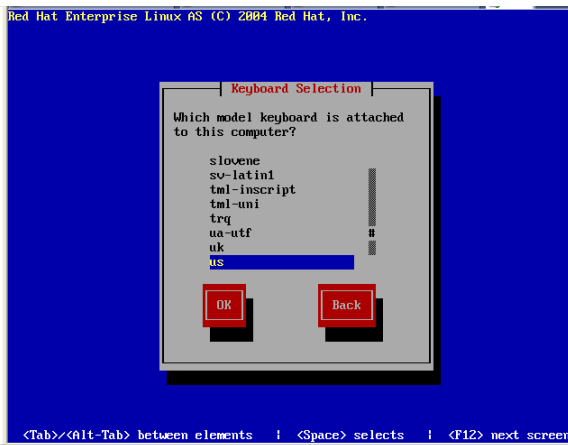
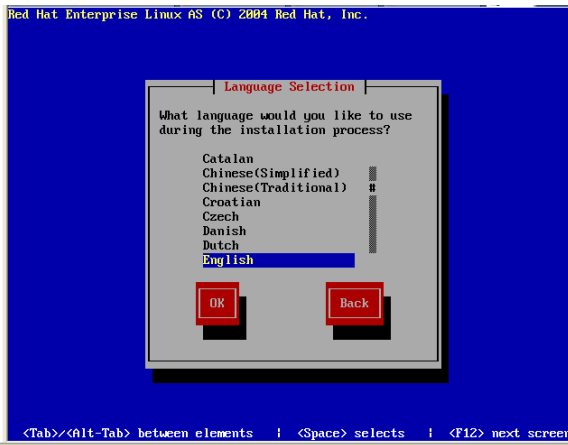
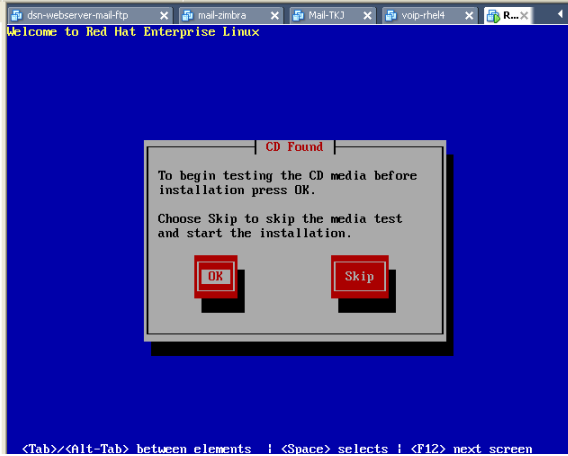
Webserver /Mail server/
FTP Server
10.100.112.4/24

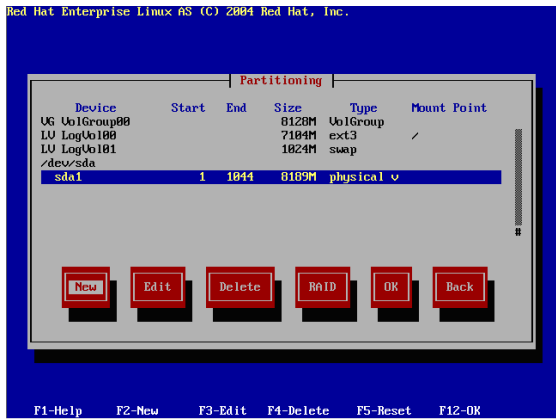
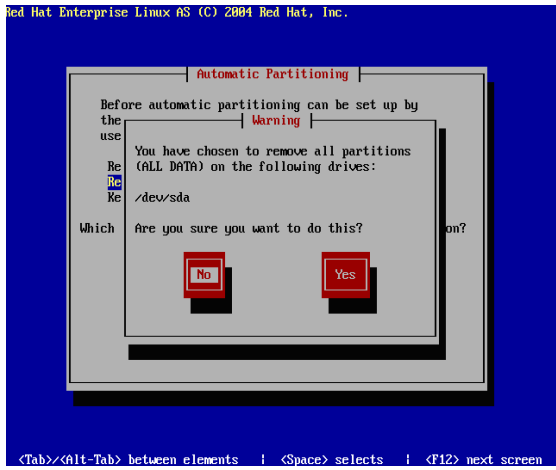
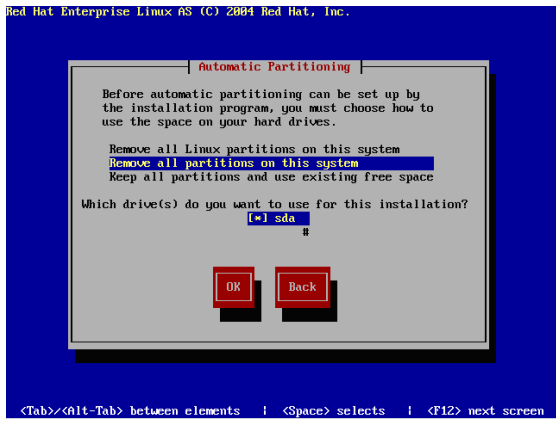
10.1

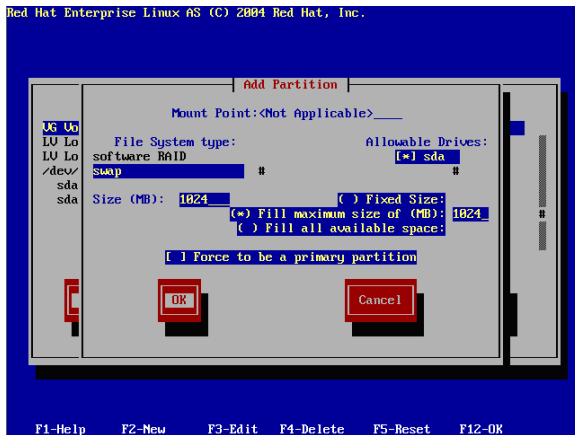
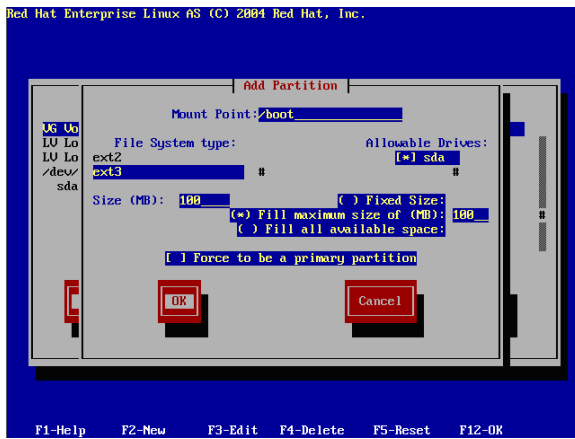
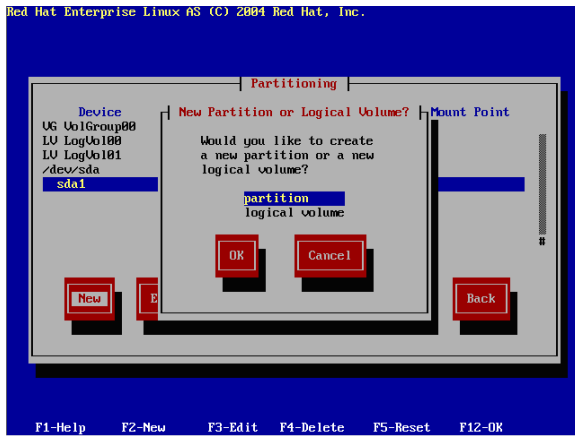
192.168

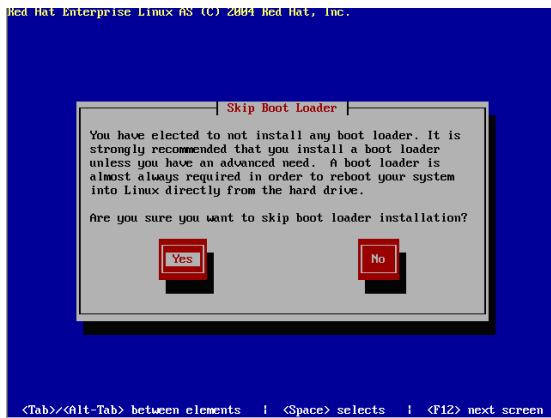
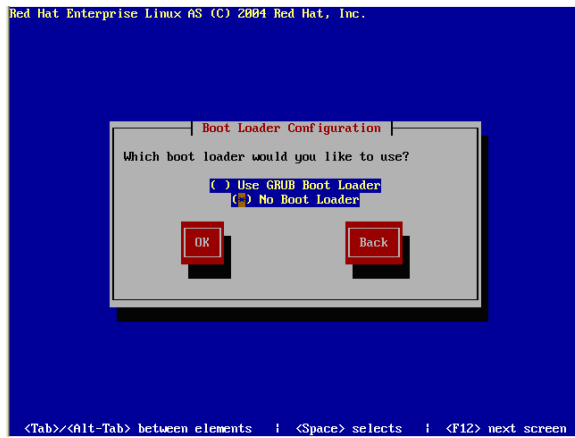
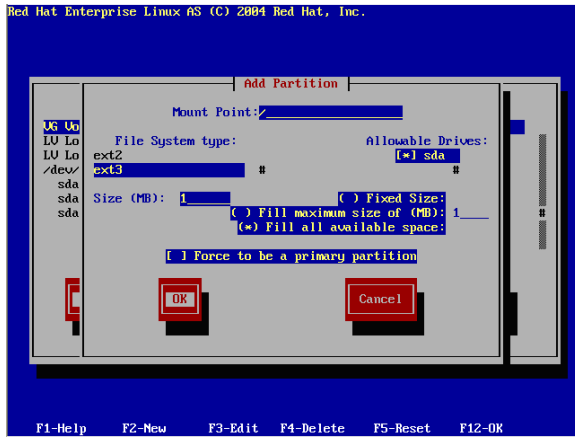
192.168.10.2/24

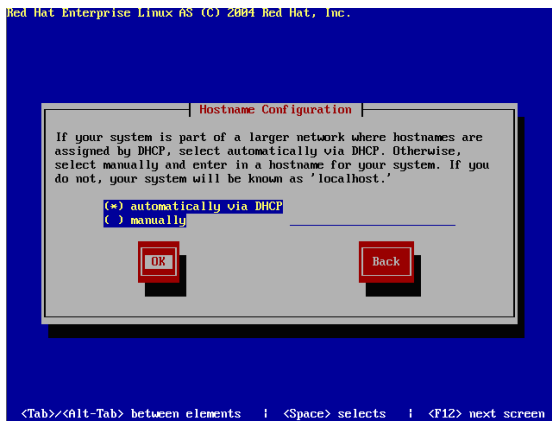
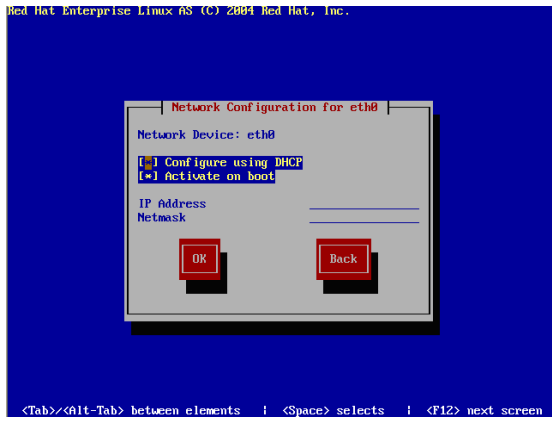
192.168.10.3/24

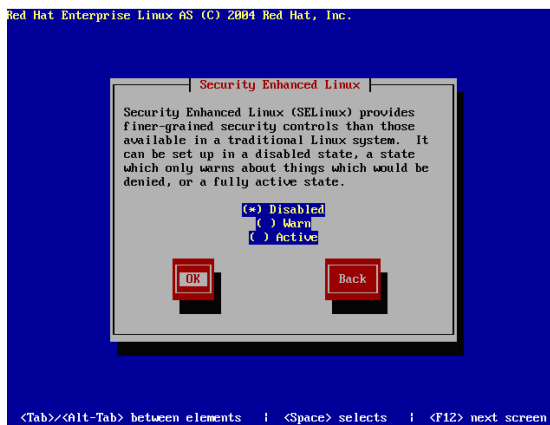
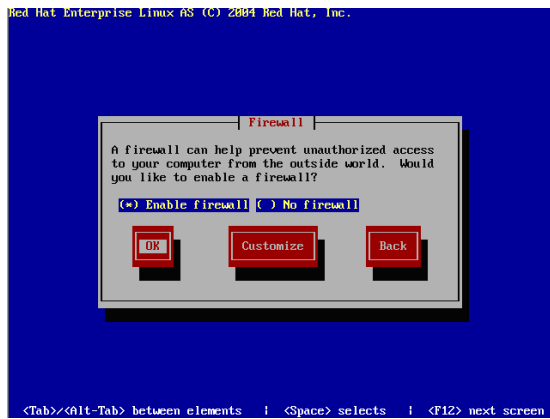
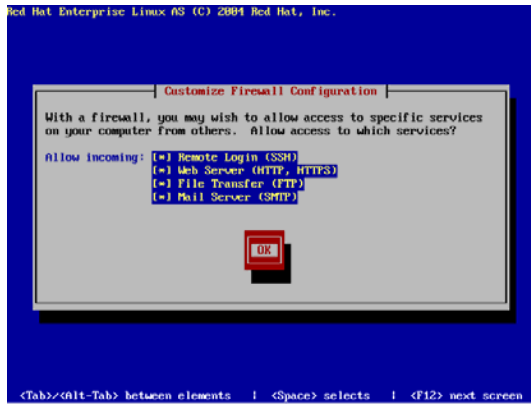












Language Support

Choose additional languages that you would like to use on this system:

- English (New Zealand)
- English (Philippines)
- English (Singapore)
- English (South Africa)
- English (USA)
- English (Zimbabwe)
- Estonian
- Faroese (Faroe Islands)

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen

Time Zone Selection

What time zone are you located in?

System clock uses UTC

- America/Montevideo
- America/Montreal
- America/Montserrat
- America/Nassau
- America/New_York

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen

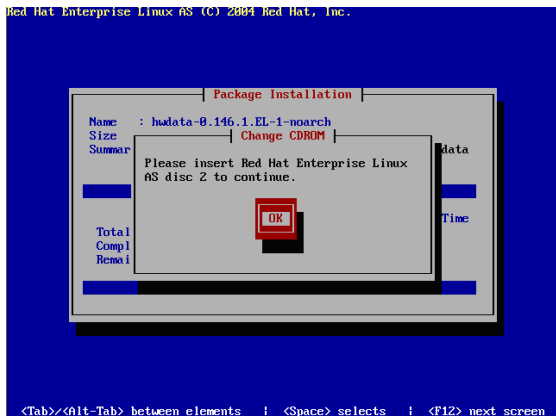
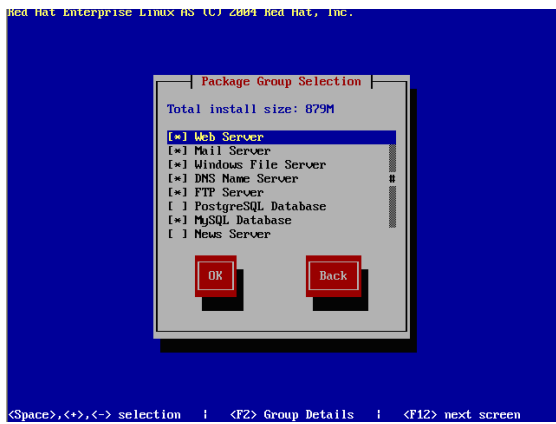
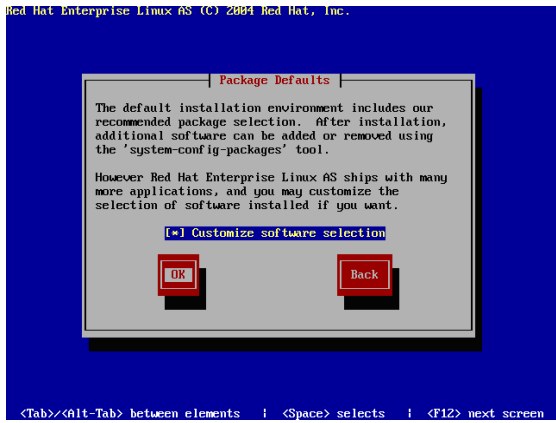
Root Password

Pick a root password. You must type it twice to ensure you know what it is and didn't make a mistake in typing. Remember that the root password is a critical part of system security!

Password:

Password (confirm):

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen



Red Hat Enterprise Linux AS (C) 2004 Red Hat, Inc.

Package Installation

Name : glibc-common-2.3.4-2-1386
Size : 200416k
Summary: Common binaries and locale data for glibc

83%

	Packages	Bytes	Time
Total :	395	804M	0:02:51
Completed:	10	15M	0:00:02
Remaining:	305	869M	0:02:49

1%


<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen

Red Hat Enterprise Linux AS (C) 2004 Red Hat, Inc.

Package Installation

Name : libdbi-0.6.5-10.RHEL4.1-1306
Size :
Summary: Change CDROM

Please insert Red Hat Enterprise Linux AS disc 3 to continue.



Total 2:47
Compl 2:44
Remai 0:03


<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen

Red Hat Enterprise Linux AS (C) 2004 Red Hat, Inc.

Package Installation

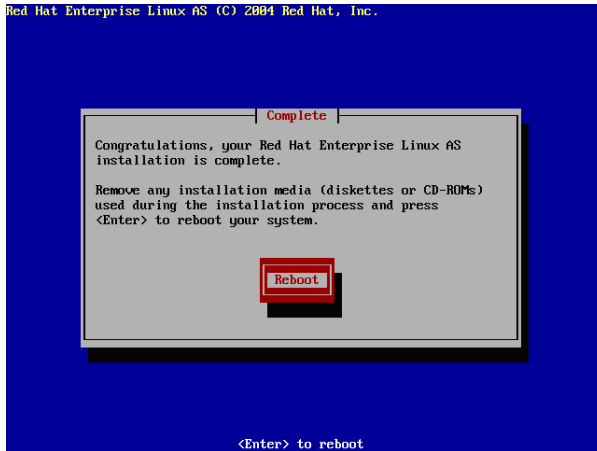
Name : ftp-server-0.39-1-1306
Size :
Summary: Change CDROM

Please insert Red Hat Enterprise Linux AS disc 4 to continue.



Total 2:48
Compl 2:44
Remai 0:03

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen



DNS dan Web Server

Sebelum penyetingan DNS server terlebih dahulu anda harus mengecek instalasi paket Bind yang ada pada system operasi linux, sebab tanpa paket bind ini DNS server anda tidak akan berjalan sesuai dengan fungsinya. adapun untuk mengecek paket bind dengan perintah berikut:

```
#rpm -qa |grep bind
```

Jika semua paket diatas sudah ada, berarti paket DNS server anda telah terinstall dengan baik. Jika belum ada anda bisa mendownload file tersebut dari internet. dan cara menginstallnya adalah sebagai berikut

1. Masukkan cd 2
2. Mounting ke CDROM dengan cara

```
# mount /media/cdroom
#cd /media/cdroom
# cd /Redhat/RPMS
#rpm -ivh bind-9.2.4-2 --nodeps
```

3. Setting IP ADDRESS

```
#cd /ect/sysconfig/network-scripts
# vi ifcg-eth0
```

Edit file tersebut

DEVICE=eth0

BOOTPROTO=static

```
HWADDR=00:0C:29:DD:47:E0
```

```
ONBOOT=yes
```

```
TYPE=Ethernet
```

```
IPADDR=10.100.112.4
```

```
NETMASK=255.255.255.0
```

setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

Kemudian aktifkan service network dengan perintah

```
#service network restart
```

4. Pertama anda setting dahulu hosts anda pada file `/etc/hosts` dengan cara seperti dibawah ini

```
#vi /etc/hosts
```

Kemudian tambahkan

```
10.100.112.4      ns.dipkom.ilkom.unsri.ac.id      ns
```

ns.dipkom.ilkom.unsri.ac.id merupakan nama host serta user anda serta no IP yang ada sebelah kiri merupakan no IP yang anda gunakan. Setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

5. Setelah itu anda setting domain anda dengan cara anda setting domain anda di file `/etc/resolv.conf` dengan cara seperti dibawah ini.

```
#vi /etc/resolv.conf
```

Kemudian isikan data seperti di bawah ini

```
=====
search dipkom.ilkom.unsri.ac.id
nameserver 10.100.112.4
=====
```

search merupakan nama domain, nameserver merupakan no IP yang anda gunakan, setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

6. Setelah itu anda diminta untuk mengedit file `/etc/named.conf` anda tambahkan baris seperti dibawah ini:

```
# vi /etc/named.conf
```

```
zone "dipkom.ilkom.unsri.ac.id" IN {  
    type master;  
    file "dipkom.zone";  
};
```

```
zone "112.100.10.in-addr.arpa" IN {  
    type master;  
    file "dipkom.arpa";  
};
```

```
include "/etc/rndc.key";
```

setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

- Langkah selanjutnya file zone dan file arpa, anda masuk dahulu ke directory **/var/named/chroot/var/named** setelah itu anda menyalin **named.local** ke **dipkom.zone** dan **dipkom.arpa** dengan perintah

```
# cp named.local dipkom.zone
```

```
# cp named.local dipkom.arpa
```

Edit file **dipkom.zone**

```
$TTL 86400  
@ IN SOA ns.dipkom.ilkom.unsri.ac.id.  
root.dipkom.ilkom.unsri.ac.id. (  
    1997022700 ; Serial  
    28800 ; Refresh  
    14400 ; Retry  
    3600000 ; Expire  
    86400 ) ; Minimum  
 IN NS ns.dipkom.ilkom.unsri.ac.id.  
 IN MX 0 ns.dipkom.ilkom.unsri.ac.id.  
 IN A 10.100.112.4  
ns IN A 10.100.112.4  
Mail IN A 10.100.112.4  
ftp IN A 10.100.112.4  
jarkom IN A 10.100.112.4
```

setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

Edit file **dipkom.zone**

```
TTL 86400  
@ IN SOA ns.dipkom.ilkom.unsri.ac.id.  
root.dipkom.ilkom.unsri.ac.id. (  
    1997022700 ; Serial
```

```
                28800 ; Refresh
                14400 ; Retry
                3600000 ; Expire
                86400 ) ; Minimum
                IN     NS     ns.dipkom.ilkom.unsri.ac.id.
4              IN     PTR    ns.dipkom.ilkom.unsri.ac.id.
```

setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

8. Menjalankan DNS

```
#service named restart
# nslookup
> dipkom.ilkom.unsri.ac.id
Server:      10.100.112.4
Address:     10.100.112.4#53
Name:  dipkom.ilkom.unsri.ac.id
Address: 10.100.112.4

> mail.dipkom.ilkom.unsri.ac.id
Server:      10.100.112.4
Address:     10.100.112.4#53
Name:  mail.dipkom.ilkom.unsri.ac.id
Address: 10.100.112.4

> ftp.dipkom.ilkom.unsri.ac.id
Server:      10.100.112.4
Address:     10.100.112.4#53
Name:  ftp.dipkom.ilkom.unsri.ac.id
Address: 10.100.112.4
```

Web server

Seperti sebelumnya, sebelum penyetingan WEB server terlebih dahulu anda harus mengecek instalasi paket httpd yang ada pada system operasi linux, sebab tanpa paket ini WEB server anda tidak akan berjalan sesuai dengan fungsinya. adapun untuk mengecek paket httpd dengan perintah berikut:

```
#rpm -qa|grep httpd
```

Apabila sudah terinstall anda setting file httpd.conf pada file /etc/httpd/conf/httpd.conf dengan perintah dibawah ini.

```
#vi /etc/httpd/conf/httpd.conf
```

```
Userdir disable          → #Userdir disable  
#Userdir public_html     → Userdir public_html
```

Setelah itu anda edit juga pada bagian :

```
NameVirtualHost 10.100.112.4:80
```

```
<VirtualHost 10.100.112.4:80>
```

```
ServerAdmin webmaster@dipkom.ilkom.unsri.ac.id
```

```
DocumentRoot /home/dipkom/public_html
```

```
ServerName dipkom.ilkom.unsri.ac.id
```

```
</VirtualHost>
```

```
<VirtualHost 10.100.112.4:80>
```

```
ServerAdmin webmaster@dipkom.ilkom.unsri.ac.id
```

```
DocumentRoot /usr/share/squierrelmail/
```

```
ServerName mail.dipkom.ilkom.unsri.ac.id
```

```
</VirtualHost>
```

setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

Di RHEL default direktory file indexnya ada di dalam /var/www/html, tapi dalam kasus ini kita akan buat direktorynya di arahkan ke user ini digunakan pada saat user mau upload file webnya cukup menggunakan user masing-masing, adapun langkah-langkah untuk membuat user dan password adalah sebagai berikut

```
#adduser fasilkom
```

```
#passwd fasilkom
```

Masukan password untuk user fasilkom

Kemudian kita Buat directory public_html di directory fasilkom dengan perintah

```
#mkdir -p public_html
```

Setelah itu kita ubah permission dari user fasilkom dengan perintah

```
# chmod -R 45 fasilkom
```

Selanjutnya kita buat file index.php or index.html dengan perintah sebagai berikut (pastikan kita berda dalam directory /home/fasilkom/public_html)

```
# vi index.php
```

```
<?
```

```
    Echo “ Selamat datang di Dipkom”;
```

```
?>
```

setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

Setelah itu anda test konfigurasi mail server anda dengan menggunakan web browser anda dengan ketikkan dipkom.ilkom.unsri.ac.id maka akan muncul layar seperti pada gambar dibawah ini.



Mail Server

1. Konfigurasi Mail Server

Sebelum penyetingan Mail server terlebih dahulu anda harus mengecek instalasi paket postfix dan squirrelmail yang ada pada system operasi linux, sebab tanpa paket ini Mail server anda tidak akan berjalan sesuai dengan fungsinya. adapun untuk mengecek paket tersebut dengan perintah berikut:

```
#rpm -qa |grep postfix
```

```
#rpm -qa |grep squirrelmail
```

Jika semua paket diatas sudah ada, berarti paket Mail server anda telah terinstall dengan baik. Jika belum ada anda bisa mendownload dari internet file postfix dan squirrelmail ini, jika sudah terinstall maka anda hanya perlu menyetting seperti pada langkah – langkah dibawah ini.

- Langkah pertama anda setting file /etc/postfix/main.cf dengan perintah seperti dibawah ini.

```
#vi /etc/postfix/main.cf
```

anda edit pada bagian seperti dibawah ini.(yang harus kita edit adalah bagian yang telah diberi tanda lingkaran)

```
*****
```

```
# Global Postfix configuration file. This file lists only a subset
# of all 300+ parameters. See the postconf(5) manual page for a
# complete list.
#
# The general format of each line is: parameter = value. Lines
# that begin with whitespace continue the previous line. A value can
# contain references to other $names or ${name}s.
#
# NOTE - CHANGE NO MORE THAN 2-3 PARAMETERS AT A TIME, AND TEST IF
# POSTFIX STILL WORKS AFTER EVERY CHANGE.

# SOFT BOUNCE
#
# The soft_bounce parameter provides a limited safety net for
# testing. When soft_bounce is enabled, mail will remain queued that
# would otherwise bounce. This parameter disables locally-generated
# bounces, and prevents the SMTP server from rejecting mail permanently
# (by changing 5xx replies into 4xx replies). However, soft_bounce
# is no cure for address rewriting mistakes or mail routing mistakes.
#
#soft_bounce = no

# LOCAL PATHNAME INFORMATION
#
# The queue_directory specifies the location of the Postfix queue.
# This is also the root directory of Postfix daemons that run chrooted.
# See the files in examples/chroot-setup for setting up Postfix chroot
# environments on different UNIX systems.
#
queue_directory = /var/spool/postfix

# The command_directory parameter specifies the location of all
# postXXX commands.
#
command_directory = /usr/sbin

# The daemon_directory parameter specifies the location of all Postfix
# daemon programs (i.e. programs listed in the master.cf file). This
# directory must be owned by root.
#
daemon_directory = /usr/libexec/postfix

# QUEUE AND PROCESS OWNERSHIP
#
# The mail_owner parameter specifies the owner of the Postfix queue
# and of most Postfix daemon processes. Specify the name of a user
# account THAT DOES NOT SHARE ITS USER OR GROUP ID WITH OTHER ACCOUNTS
# AND THAT OWNS NO OTHER FILES OR PROCESSES ON THE SYSTEM. In
# particular, don't specify nobody or daemon. PLEASE USE A DEDICATED
# USER.
#
```

```
mail_owner = postfix
```

```
# The default_privs parameter specifies the default rights used by  
# the local delivery agent for delivery to external file or command.  
# These rights are used in the absence of a recipient user context.  
# DO NOT SPECIFY A PRIVILEGED USER OR THE POSTFIX OWNER.  
#
```

```
#default_privs = nobody
```

```
# 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 = host.domain.tld
```

```
#myhostname = virtual.domain.tld
```

```
myhostname = ns.mail.dipkom.ilkom.unsri.ac.id
```

```
# 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 = domain.tld
```

```
mydomain = dipkom.ilkom.unsri.ac.id
```

```
# 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].  
#
```

```
# 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)
```

```
# The proxy_interfaces parameter specifies the network interface  
# addresses that this mail system receives mail on by way of a  
# proxy or network address translation unit. This setting extends  
# the address list specified with the inet_interfaces parameter.  
#
```

```
# You must specify your proxy/NAT addresses when your system is a  
# backup MX host for other domains, otherwise mail delivery loops  
# will happen when the primary MX host is down.  
#
```

```
#proxy_interfaces =  
#proxy_interfaces = 1.2.3.4
```

```
# The mydestination parameter specifies the list of domains that this  
# machine considers itself the final destination for.  
#
```

```
# These domains are routed to the delivery agent specified with the  
# local_transport parameter setting. By default, that is the UNIX  
# compatible delivery agent that lookups all recipients in /etc/passwd  
# and /etc/aliases or their equivalent.  
#
```

```
# The default is $myhostname + localhost.$mydomain. On a mail domain  
# gateway, you should also include $mydomain.  
#
```

```
# Do not specify the names of virtual domains - those domains are  
# specified elsewhere (see VIRTUAL_README).  
#
```

```
# Do not specify the names of domains that this machine is backup MX  
# host for. Specify those names via the relay_domains settings for  
# the SMTP server, or use permit_mx_backup if you are lazy (see  
# STANDARD_CONFIGURATION_README).  
#
```

```
# The local machine is always the final destination for mail addressed  
# to user@[the.net.work.address] of an interface that the mail system  
# 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 = $myhostname, localhost.$mydomain, localhost
```

```
(mydestination = $myhostname, localhost.$mydomain)
```

```
#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  
# mail for unknown local users. This parameter is defined by default.
```

```
#
# To turn off local recipient checking in the SMTP server, specify
# local_recipient_maps = (i.e. empty).
#
# The default setting assumes that you use the default Postfix local
# delivery agent for local delivery. You need to update the
# local_recipient_maps setting if:
#
# - You define $mydestination domain recipients in files other than
#   /etc/passwd, /etc/aliases, or the $virtual_alias_maps files.
#   For example, you define $mydestination domain recipients in
#   the $virtual_mailbox_maps files.
#
# - You redefine the local delivery agent in master.cf.
#
# - You redefine the "local_transport" setting in main.cf.
#
# - You use the "luser_relay", "mailbox_transport", or "fallback_transport"
#   feature of the Postfix local delivery agent (see local(8)).
#
# Details are described in the LOCAL_RECIPIENT_README file.
#
# Beware: if the Postfix SMTP server runs chrooted, you probably have
# to access the passwd file via the proxymap service, in order to
# overcome chroot restrictions. The alternative, having a copy of
# the system passwd file in the chroot jail is just not practical.
#
# The right-hand side of the lookup tables is conveniently ignored.
# In the left-hand side, specify a bare username, an @domain.tld
# wild-card, or specify a user@domain.tld address.
#
#local_recipient_maps = unix:passwd.byname $alias_maps
#local_recipient_maps = proxy:unix:passwd.byname $alias_maps
#local_recipient_maps =

# The unknown_local_recipient_reject_code specifies the SMTP server
# response code when a recipient domain matches $mydestination or
# ${proxy,inet}_interfaces, while $local_recipient_maps is non-empty
# and the recipient address or address local-part is not found.
#
# The default setting is 550 (reject mail) but it is safer to start
# with 450 (try again later) until you are certain that your
# local_recipient_maps settings are OK.
#
unknown_local_recipient_reject_code = 550

# TRUST AND RELAY CONTROL

# The mynetworks parameter specifies the list of "trusted" SMTP
# clients that have more privileges than "strangers".
#
# In particular, "trusted" SMTP clients are allowed to relay mail
# through Postfix. See the smtpd_recipient_restrictions parameter
# in postconf(5).
#
# You can specify the list of "trusted" network addresses by hand
# or you can let Postfix do it for you (which is the default).
#
# By default (mynetworks_style = subnet), Postfix "trusts" SMTP
# clients in the same IP subnetworks as the local machine.
# On Linux, this does works correctly only with interfaces specified
# with the "ifconfig" command.
#
```

```

# Specify "mynetworks_style = class" when Postfix should "trust" SMTP
# clients in the same IP class A/B/C networks as the local machine.
# Don't do this with a dialup site - it would cause Postfix to "trust"
# your entire provider's network. Instead, specify an explicit
# mynetworks list by hand, as described below.
#
# Specify "mynetworks_style = host" when Postfix should "trust"
# only the local machine.
#
#mynetworks_style = class
#mynetworks_style = subnet
#mynetworks_style = host

# Alternatively, you can specify the mynetworks list by hand, in
# which case Postfix ignores the mynetworks_style setting.
#
# 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 pathname 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 = 10.100.112.0/24, 127.0.0.0/8
#mynetworks = 168.100.189.0/28, 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.
#
# In addition to the above, the Postfix SMTP server by default accepts mail
# that Postfix is final destination for:
# - destinations that match $inet_interfaces or $proxy_interfaces,
# - destinations that match $mydestination
# - destinations that match $virtual_alias_domains,
# - destinations that match $virtual_mailbox_domains.
# These destinations do not need to be listed in $relay_domains.
#
# Specify a list of hosts or domains, /file/name patterns or type:name
# lookup tables, separated by commas and/or whitespace. Continue
# long lines by starting the next line with whitespace. A file name
# is replaced by its contents; a type:name table is matched when a
# (parent) domain appears as lookup key.
#
# NOTE: Postfix will not automatically forward mail for domains that
# list this system as their primary or backup MX host. See the
# permit_mx_backup restriction description in postconf(5).
#
#relay_domains = $mydestination

# INTERNET OR INTRANET

# The relayhost parameter specifies the default host to send mail to

```

```
# when no entry is matched in the optional transport(5) table. When
# no relayhost is given, mail is routed directly to the destination.
#
# On an intranet, specify the organizational domain name. If your
# internal DNS uses no MX records, specify the name of the intranet
# gateway host instead.
#
# In the case of SMTP, specify a domain, host, host:port, [host]:port,
# [address] or [address]:port; the form [host] turns off MX lookups.
#
# If you're connected via UUCP, see also the default_transport parameter.
#
#relayhost = $mydomain
#relayhost = [gateway.my.domain]
#relayhost = [mailserver.isp.tld]
#relayhost = uucphost
#relayhost = [an.ip.add.ress]

# REJECTING UNKNOWN RELAY USERS
#
# The relay_recipient_maps parameter specifies optional lookup tables
# with all addresses in the domains that match $relay_domains.
#
# If this parameter is defined, then the SMTP server will reject
# mail for unknown relay users. This feature is off by default.
#
# The right-hand side of the lookup tables is conveniently ignored.
# In the left-hand side, specify an @domain.tld wild-card, or specify
# a user@domain.tld address.
#
#relay_recipient_maps = hash:/etc/postfix/relay_recipients

# INPUT RATE CONTROL
#
# The in_flow_delay configuration parameter implements mail input
# flow control. This feature is turned on by default, although it
# still needs further development (it's disabled on SCO UNIX due
# to an SCO bug).
#
# A Postfix process will pause for $in_flow_delay seconds before
# accepting a new message, when the message arrival rate exceeds the
# message delivery rate. With the default 100 SMTP server process
# limit, this limits the mail inflow to 100 messages a second more
# than the number of messages delivered per second.
#
# Specify 0 to disable the feature. Valid delays are 0..10.
#
#in_flow_delay = 1s

# ADDRESS REWRITING
#
# The ADDRESS_REWRITING_README document gives information about
# address masquerading or other forms of address rewriting including
# username->Firstname.Lastname mapping.

# ADDRESS REDIRECTION (VIRTUAL DOMAIN)
#
# The VIRTUAL_README document gives information about the many forms
# of domain hosting that Postfix supports.

# "USER HAS MOVED" BOUNCE MESSAGES
#
# See the discussion in the ADDRESS_REWRITING_README document.
```

```

# TRANSPORT MAP
#
# See the discussion in the ADDRESS_REWRITING_README document.

# ALIAS DATABASE
#
# The alias_maps parameter specifies the list of alias databases used
# by the local delivery agent. The default list is system dependent.
#
# On systems with NIS, the default is to search the local alias
# database, then the NIS alias database. See aliases(5) for syntax
# details.
#
# If you change the alias database, run "postalias /etc/aliases" (or
# wherever your system stores the mail alias file), or simply run
# "newaliases" to build the necessary DBM or DB file.
#
# It will take a minute or so before changes become visible. Use
# "postfix reload" to eliminate the delay.
#
#alias_maps = dbm:/etc/aliases
#alias_maps = hash:/etc/aliases
#alias_maps = hash:/etc/aliases, nis:mail.aliases
#alias_maps = netinfo:/aliases

# The alias_database parameter specifies the alias database(s) that
# are built with "newaliases" or "sendmail -bi". This is a separate
# configuration parameter, because alias_maps (see above) may specify
# tables that are not necessarily all under control by Postfix.
#
#alias_database = dbm:/etc/aliases
#alias_database = dbm:/etc/mail/aliases
#alias_database = hash:/etc/aliases
#alias_database = hash:/etc/aliases, hash:/opt/majordomo/aliases

# ADDRESS EXTENSIONS (e.g., user+foo)
#
# The recipient_delimiter parameter specifies the separator between
# user names and address extensions (user+foo). See canonical(5),
# local(8), relocated(5) and virtual(5) for the effects this has on
# aliases, canonical, virtual, relocated and .forward file lookups.
# Basically, the software tries user+foo and .forward+foo before
# trying user and .forward.
#
#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.
# Exception: delivery for root is done as $default_user.
#
# Other environment variables of interest: USER (recipient username),
# EXTENSION (address extension), DOMAIN (domain part of address),
# and LOCAL (the address localpart).
#
# Unlike other Postfix configuration parameters, the mailbox_command
# parameter is not subjected to $parameter substitutions. This is to
# make it easier to specify shell syntax (see example below).
#
# Avoid shell meta characters because they will force Postfix to run
# an expensive shell process. Procmail alone is expensive enough.
#
# IF YOU USE THIS TO DELIVER MAIL SYSTEM-WIDE, YOU MUST SET UP AN
# ALIAS THAT FORWARDS MAIL FOR ROOT TO A REAL USER.
#
#mailbox_command = /some/where/procmail
#mailbox_command = /some/where/procmail -a "$EXTENSION"

# The mailbox_transport specifies the optional transport in master.cf
# to use after processing aliases and .forward files. This parameter
# has precedence over the mailbox_command, fallback_transport and
# user_relay parameters.
#
# Specify a string of the form transport:nexthop, where transport is
# the name of a mail delivery transport defined in master.cf. The
# :nexthop part is optional. For more details see the sample transport
# configuration file.
#
# NOTE: if you use this feature for accounts not in the UNIX password
# file, then you must update the "local_recipient_maps" setting in
# the main.cf file, otherwise the SMTP server will reject mail for
# non-UNIX accounts with "User unknown in local recipient table".
#
#mailbox_transport = lmtp:unix:/file/name
#mailbox_transport = cyrus

# The fallback_transport specifies the optional transport in master.cf
# to use for recipients that are not found in the UNIX passwd database.
# This parameter has precedence over the user_relay parameter.
#
# Specify a string of the form transport:nexthop, where transport is
# the name of a mail delivery transport defined in master.cf. The
# :nexthop part is optional. For more details see the sample transport
# configuration file.
#
# NOTE: if you use this feature for accounts not in the UNIX password
# file, then you must update the "local_recipient_maps" setting in
# the main.cf file, otherwise the SMTP server will reject mail for
# non-UNIX accounts with "User unknown in local recipient table".
#
#fallback_transport = lmtp:unix:/file/name
#fallback_transport = cyrus
#fallback_transport =
```



```
# The user_relay parameter specifies an optional destination address
# for unknown recipients. By default, mail for unknown@$mydestination,
# unknown@[inet_interfaces] or unknown@[proxy_interfaces] is returned
# as undeliverable.
#
# The following expansions are done on user_relay: $user (recipient
# username), $shell (recipient shell), $home (recipient home directory),
# $recipient (full recipient address), $extension (recipient address
# extension), $domain (recipient domain), $local (entire recipient
# localpart), $recipient_delimiter. Specify ${name?value} or
# ${name:value} to expand value only when $name does (does not) exist.
#
# user_relay works only for the default Postfix local delivery agent.
#
# NOTE: if you use this feature for accounts not in the UNIX password
# file, then you must specify "local_recipient_maps =" (i.e. empty) in
# the main.cf file, otherwise the SMTP server will reject mail for
# non-UNIX accounts with "User unknown in local recipient table".
#
#user_relay = $user@other.host
#user_relay = $local@other.host
#user_relay = admin+$local

# JUNK MAIL CONTROLS
#
# The controls listed here are only a very small subset. The file
# SMTPD_ACCESS_README provides an overview.

# The header_checks parameter specifies an optional table with patterns
# that each logical message header is matched against, including
# headers that span multiple physical lines.
#
# By default, these patterns also apply to MIME headers and to the
# headers of attached messages. With older Postfix versions, MIME and
# attached message headers were treated as body text.
#
# For details, see "man header_checks".
#
#header_checks = regexp:/etc/postfix/header_checks

# FAST ETRN SERVICE
#
# Postfix maintains per-destination logfiles with information about
# deferred mail, so that mail can be flushed quickly with the SMTP
# "ETRN domain.tld" command, or by executing "sendmail -qRdomain.tld".
# See the ETRN_README document for a detailed description.
#
# The fast_flush_domains parameter controls what destinations are
# eligible for this service. By default, they are all domains that
# this server is willing to relay mail to.
#
#fast_flush_domains = $relay_domains

# SHOW SOFTWARE VERSION OR NOT
#
# The smtpd_banner parameter specifies the text that follows the 220
# code in the SMTP server's greeting banner. Some people like to see
# the mail version advertised. By default, Postfix shows no version.
#
# You MUST specify $myhostname at the start of the text. That is an
# RFC requirement. Postfix itself does not care.
#
#smtpd_banner = $myhostname ESMTP $mail_name
```

```

#smtpd_banner = $myhostname ESMTP $mail_name ($mail_version)

# PARALLEL DELIVERY TO THE SAME DESTINATION
#
# How many parallel deliveries to the same user or domain? With local
# delivery, it does not make sense to do massively parallel delivery
# to the same user, because mailbox updates must happen sequentially,
# and expensive pipelines in .forward files can cause disasters when
# too many are run at the same time. With SMTP deliveries, 10
# simultaneous connections to the same domain could be sufficient to
# raise eyebrows.
#
# Each message delivery transport has its XXX_destination_concurrency_limit
# parameter. The default is $default_destination_concurrency_limit for
# most delivery transports. For the local delivery agent the default is 2.

#local_destination_concurrency_limit = 2
#default_destination_concurrency_limit = 20

# DEBUGGING CONTROL
#
# The debug_peer_level parameter specifies the increment in verbose
# logging level when an SMTP client or server host name or address
# matches a pattern in the debug_peer_list parameter.
#
debug_peer_level = 2

# The debug_peer_list parameter specifies an optional list of domain
# or network patterns, /file/name patterns or type:name tables. When
# an SMTP client or server host name or address matches a pattern,
# increase the verbose logging level by the amount specified in the
# debug_peer_level parameter.
#
#debug_peer_list = 127.0.0.1
#debug_peer_list = some.domain

# The debugger_command specifies the external command that is executed
# when a Postfix daemon program is run with the -D option.
#
# Use "command .. & sleep 5" so that the debugger can attach before
# the process marches on. If you use an X-based debugger, be sure to
# set up your XAUTHORITY environment variable before starting Postfix.
#
debugger_command =
    PATH=/bin:/usr/bin:/usr/local/bin:/usr/X11R6/bin
    xgdb $daemon_directory/$process_name $process_id & sleep 5

# If you don't have X installed on the Postfix machine, try:
# debugger_command =
#     PATH=/bin:/usr/bin:/usr/local/bin; export PATH; (echo cont;
#     echo where) | gdb $daemon_directory/$process_name $process_id 2>&1
#     >$config_directory/$process_name.$process_id.log & sleep 5

# INSTALL-TIME CONFIGURATION INFORMATION
#
# The following parameters are used when installing a new Postfix version.
#
# sendmail_path: The full pathname of the Postfix sendmail command.
# This is the Sendmail-compatible mail posting interface.
#
sendmail_path = /usr/sbin/sendmail.postfix

# newaliases_path: The full pathname of the Postfix newaliases command.

```

```

# This is the Sendmail-compatible command to build alias databases.
#
newaliases_path = /usr/bin/newaliases.postfix

# mailq_path: The full pathname of the Postfix mailq command. This
# is the Sendmail-compatible mail queue listing command.
#
mailq_path = /usr/bin/mailq.postfix

# setgid_group: The group for mail submission and queue management
# commands. This must be a group name with a numerical group ID that
# is not shared with other accounts, not even with the Postfix account.
#
setgid_group = postdrop

# html_directory: The location of the Postfix HTML documentation.
#
html_directory = no

# manpage_directory: The location of the Postfix on-line manual pages.
#
manpage_directory = /usr/share/man

# sample_directory: The location of the Postfix sample configuration files.
# This parameter is obsolete as of Postfix 2.1.
#
sample_directory = /usr/share/doc/postfix-2.1.5/samples

# readme_directory: The location of the Postfix README files.
#
readme_directory = /usr/share/doc/postfix-2.1.5/README_FILES

```

setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

- Setelah itu jalankan service postfix anda, serta anda lihat status dari postfix anda dengan perintah seperti dibawah ini.

```
#service postfix restart
```

- Selanjutnya kita buat file /etc/xinetd.d/ipop3 dan /etc/xinetd.d/imap seperti dibawah ini

```
#cd /etc/xinetd.d/
```

```
#vi ipop3
```

```

service pop3
{
    socket_type = stream
    wait        = no
    user        = root
    server      = /usr/libexec/dovecot/pop3-login
    log_on_success += HOST DURATION
    log_on_failure += HOST
    disable     = no
}

```

setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

```
# vi imap
```

```
service imap
{
    socket_type = stream
    wait        = no
    user        = root
    server      = /usr/libexec/dovecot/imap-login
    log_on_success += HOST DURATION
    log_on_failure += HOST
    disable     = no
}
```

setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

- Setelah itu anda restart service xinetd anda dengan perintah seperti dibawah ini :

```
# service xinetd restart
```

- Setelah cek paket squirrelmail yang ada pada system operasi linux redhat anda dengan cara seperti dibawah ini :

```
#rpm -qa|grep squirrelmail
```

Apabila paket squirrelmail sudah terinstall, mengedit file yang ada pada directory /etc/squirrelmail/config.php dengan perintah :

```
#vi /etc/squirrelmail/config.php
```

edit pada bagian dibawah ini

```
*****
```

```
<?php
```

```
/**
 * SquirrelMail Configuration File
 * Created using the configure script, conf.pl
 */

global $version;
$config_version = '1.4.0';
$config_use_color = 1;

$org_name      = "dipkom.ilkom";

$org_logo      = SM_PATH . 'images/sm_logo.png';
$org_logo_width = '308';
$org_logo_height = '111';
$org_title     = "SquirrelMail $version";
$signout_page  = '';
$frame_top     = '_top';

$provider_uri  = 'http://www.squirrelmail.org/';

$provider_name = 'SquirrelMail';

$motd = "";
```

```
$squirrelmail_default_language = 'en_US';
<--$domain = 'dipkom.ilkom.unsri.ac.id';
<--$imapServerAddress = 'mail.dipkom.ilkom.unsri.ac.id';
$imapPort = 143;
$useSendmail = true;
<--$smtpServerAddress = 'mail.dipkom.ilkom.unsri.ac.id';
$smtpPort = 25;
$sendmail_path = '/usr/sbin/sendmail';
$pop_before_smtp = false;
$imap_server_type = 'uw';
$invert_time = false;
$optional_delimiter = '/';

$default_folder_prefix = 'mail/';
$trash_folder = 'Trash';
$sent_folder = 'Sent';
$draft_folder = 'Drafts';
$default_move_to_trash = true;
$default_move_to_sent = true;
$default_save_as_draft = true;
$show_prefix_option = true;
$list_special_folders_first = true;
$use_special_folder_color = true;
$auto_expunge = true;
$default_sub_of_inbox = false;
$show_contain_subfolders_option = true;
$default_unseen_notify = 2;
$default_unseen_type = 1;
$auto_create_special = true;
$delete_folder = false;
$noselect_fix_enable = false;

$default_charset = 'iso-8859-1';
$data_dir = '/var/lib/squirrelmail/prefs/';
$attachment_dir = '/var/spool/squirrelmail/attach/';
$dir_hash_level = 0;
$default_left_size = '150';
$force_username_lowercase = false;
$default_use_priority = true;
$hide_sm_attributions = false;
$default_use_mdn = true;
$edit_identity = true;
$edit_name = true;
$allow_thread_sort = true;
$allow_server_sort = true;
$allow_charset_search = true;
$uid_support = true;

$plugins[0] = 'delete_move_next';
$plugins[1] = 'squirrelspell';
$plugins[2] = 'newmail';

$theme_css = '';
$theme_default = 0;
$theme[0]['PATH'] = SM_PATH . 'themes/default_theme.php';
$theme[0]['NAME'] = 'Default';
$theme[1]['PATH'] = SM_PATH . 'themes/plain_blue_theme.php';
```

```
$theme[1]['NAME'] = 'Plain Blue';
$theme[2]['PATH'] = SM_PATH . 'themes/sandstorm_theme.php';
$theme[2]['NAME'] = 'Sand Storm';
$theme[3]['PATH'] = SM_PATH . 'themes/deepocean_theme.php';
$theme[3]['NAME'] = 'Deep Ocean';
$theme[4]['PATH'] = SM_PATH . 'themes/slashdot_theme.php';
$theme[4]['NAME'] = 'Slashdot';
$theme[5]['PATH'] = SM_PATH . 'themes/purple_theme.php';
$theme[5]['NAME'] = 'Purple';
$theme[6]['PATH'] = SM_PATH . 'themes/forest_theme.php';
$theme[6]['NAME'] = 'Forest';
$theme[7]['PATH'] = SM_PATH . 'themes/ice_theme.php';
$theme[7]['NAME'] = 'Ice';
$theme[8]['PATH'] = SM_PATH . 'themes/seaspray_theme.php';
$theme[8]['NAME'] = 'Sea Spray';
$theme[9]['PATH'] = SM_PATH . 'themes/bluesteel_theme.php';
$theme[9]['NAME'] = 'Blue Steel';
$theme[10]['PATH'] = SM_PATH . 'themes/dark_grey_theme.php';
$theme[10]['NAME'] = 'Dark Grey';
$theme[11]['PATH'] = SM_PATH . 'themes/high_contrast_theme.php';
$theme[11]['NAME'] = 'High Contrast';
$theme[12]['PATH'] = SM_PATH . 'themes/black_bean_burrito_theme.php';
$theme[12]['NAME'] = 'Black Bean Burrito';
$theme[13]['PATH'] = SM_PATH . 'themes/serververy_theme.php';
$theme[13]['NAME'] = 'Serververy';
$theme[14]['PATH'] = SM_PATH . 'themes/maize_theme.php';
$theme[14]['NAME'] = 'Maize';
$theme[15]['PATH'] = SM_PATH . 'themes/bluesnews_theme.php';
$theme[15]['NAME'] = 'BluesNews';
$theme[16]['PATH'] = SM_PATH . 'themes/deepocean2_theme.php';
$theme[16]['NAME'] = 'Deep Ocean 2';
$theme[17]['PATH'] = SM_PATH . 'themes/blue_grey_theme.php';
$theme[17]['NAME'] = 'Blue Grey';
$theme[18]['PATH'] = SM_PATH . 'themes/dompie_theme.php';
$theme[18]['NAME'] = 'Dompie';
$theme[19]['PATH'] = SM_PATH . 'themes/methodical_theme.php';
$theme[19]['NAME'] = 'Methodical';
$theme[20]['PATH'] = SM_PATH . 'themes/greenhouse_effect.php';
$theme[20]['NAME'] = 'Greenhouse Effect (Changes)';
$theme[21]['PATH'] = SM_PATH . 'themes/in_the_pink.php';
$theme[21]['NAME'] = 'In The Pink (Changes)';
$theme[22]['PATH'] = SM_PATH . 'themes/kind_of_blue.php';
$theme[22]['NAME'] = 'Kind of Blue (Changes)';
$theme[23]['PATH'] = SM_PATH . 'themes/monostochastic.php';
$theme[23]['NAME'] = 'Monostochastic (Changes)';
$theme[24]['PATH'] = SM_PATH . 'themes/shades_of_grey.php';
$theme[24]['NAME'] = 'Shades of Grey (Changes)';
$theme[25]['PATH'] = SM_PATH . 'themes/spice_of_life.php';
$theme[25]['NAME'] = 'Spice of Life (Changes)';
$theme[26]['PATH'] = SM_PATH . 'themes/spice_of_life_lite.php';
$theme[26]['NAME'] = 'Spice of Life - Lite (Changes)';
$theme[27]['PATH'] = SM_PATH . 'themes/spice_of_life_dark.php';
$theme[27]['NAME'] = 'Spice of Life - Dark (Changes)';
$theme[28]['PATH'] = SM_PATH . 'themes/christmas.php';
$theme[28]['NAME'] = 'Holiday - Christmas';
$theme[29]['PATH'] = SM_PATH . 'themes/darkness.php';
$theme[29]['NAME'] = 'Darkness (Changes)';
$theme[30]['PATH'] = SM_PATH . 'themes/random.php';
$theme[30]['NAME'] = 'Random (Changes every login)';
$theme[31]['PATH'] = SM_PATH . 'themes/midnight.php';
$theme[31]['NAME'] = 'Midnight';
$theme[32]['PATH'] = SM_PATH . 'themes/alien_glow.php';
$theme[32]['NAME'] = 'Alien Glow';
```

```

$theme[33]['PATH'] = SM_PATH . 'themes/dark_green.php';
$theme[33]['NAME'] = 'Dark Green';
$theme[34]['PATH'] = SM_PATH . 'themes/penguin.php';
$theme[34]['NAME'] = 'Penguin';

$default_use_javascript_addr_book = false;
$addrbook_dsn = '';
$addrbook_table = 'address';

$prefs_dsn = '';
$prefs_table = 'userprefs';
$prefs_user_field = 'user';
$prefs_key_field = 'prefkey';
$prefs_val_field = 'prefval';
$no_list_for_subscribe = false;
$smtp_auth_mech = 'none';
$imap_auth_mech = 'login';
$use_imap_tls = false;
$use_smtp_tls = false;
$session_name = 'SQMSESSID';

@include SM_PATH . 'config/config_local.php';

/**
 * Make sure there are no characters after the PHP closing
 * tag below (including newline characters and whitespace).
 * Otherwise, that character will cause the headers to be
 * sent and regular output to begin, which will majorly screw
 * things up when we try to send more headers later.
 */
?>

```

setelah itu anda simpan dengan perintah **Esc** kemudian **:wq**

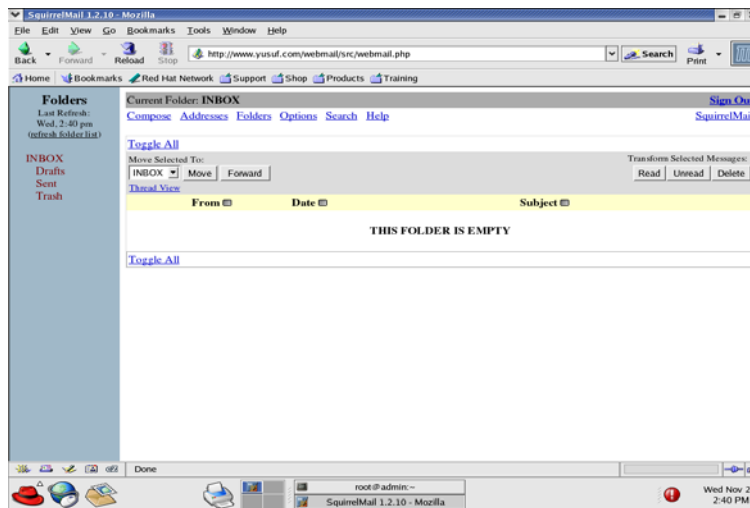
- Restart paket xinetd anda dengan perintah seperti dibawah ini :

```
# service xinetd restart
```

Setelah itu anda test konfigurasi mail server anda dengan menggunakan web browser anda dengan ketikkan mail.dipkom.ilkom.unsri.ac.id maka akan muncul layar seperti pada gambar dibawah ini.



- Apabila muncul layar seperti diatas maka Mailserver anda sudah selesai dan berhasil dibuat.
- Dan untuk membuka atau masuk tinggal masukkan user dan password saja.



Konfigurasi FTP Server

Sebelum penyetingan FTP server terlebih dahulu anda harus mengecek installasi paket FTP yang ada pada system operasi linux, pada modul kali ini kitaa menggunakan type FTP vsftpd. Untuk mengecek apakah paket ini sudah terinstall atau belum anda cuma cukup mengetikkan perintah seperti dibawah ini.

```
#rpm -qa|grep vsftpd
```

Jika paket diatas sudah ada, berarti anda cukup mengkonfigurasi file vsftpd.conf

- Pertama – tama anda edit file /etc/vsftpd/vsftpd.conf dengan perintah.

vi /etc/vsftpd/vsftpd.conf

```
# Example config file /etc/vsftpd/vsftpd.conf
#
# The default compiled in settings are fairly paranoid. This sample file
# loosens things up a bit, to make the ftp daemon more usable.
# Please see vsftpd.conf.5 for all compiled in defaults.
#
# READ THIS: This example file is NOT an exhaustive list of vsftpd options.
# Please read the vsftpd.conf.5 manual page to get a full idea of vsftpd's
# capabilities.
#
# Allow_anonymous FTP? (Beware - allowed by default if you comment this out).
anonymous_enable=YES
#
# Uncomment this to allow local users to log in.
local_enable=YES
#
# Uncomment this to enable any form of FTP write command.
write_enable=YES
#
# Default umask for local users is 077. You may wish to change this to 022,
# if your users expect that (022 is used by most other ftpd's)
local_umask=022
#
# Uncomment this to allow the anonymous FTP user to upload files. This only
# has an effect if the above global write enable is activated. Also, you will
# obviously need to create a directory writable by the FTP user.
#anon_upload_enable=YES
#
# Uncomment this if you want the anonymous FTP user to be able to create
# new directories.
#anon_mkdir_write_enable=YES
#
# Activate directory messages - messages given to remote users when they
# go into a certain directory.
dirmessage_enable=YES
#
# Activate logging of uploads/downloads.
xferlog_enable=YES
#
# Make sure PORT transfer connections originate from port 20 (ftp-data).
connect_from_port_20=YES
#
# If you want, you can arrange for uploaded anonymous files to be owned by
# a different user. Note! Using "root" for uploaded files is not
# recommended!
#chown_uploads=YES
#chown_username=whoever
#
# You may override where the log file goes if you like. The default is shown
# below.
#xferlog_file=/var/log/vsftpd.log
#
# If you want, you can have your log file in standard ftpd xferlog format
xferlog_std_format=YES
#
# You may change the default value for timing out an idle session.
#idle_session_timeout=600
```

```

#
# You may change the default value for timing out a data connection.
#data_connection_timeout=120
#
# It is recommended that you define on your system a unique user which the
# ftp server can use as a totally isolated and unprivileged user.
#nopriv_user=ftpsecure
#
# Enable this and the server will recognise asynchronous ABOR requests. Not
# recommended for security (the code is non-trivial). Not enabling it,
# however, may confuse older FTP clients.
#async_abor_enable=YES
#
# By default the server will pretend to allow ASCII mode but in fact ignore
# the request. Turn on the below options to have the server actually do ASCII
# mangling on files when in ASCII mode.
# Beware that turning on ascii_download_enable enables malicious remote parties
# to consume your I/O resources, by issuing the command "SIZE /big/file" in
# ASCII mode.
# These ASCII options are split into upload and download because you may wish
# to enable ASCII uploads (to prevent uploaded scripts etc. from breaking),
# without the DoS risk of SIZE and ASCII downloads. ASCII mangling should be
# on the client anyway..
#ascii_upload_enable=YES
#ascii_download_enable=YES
#
# You may fully customise the login banner string:
#ftpd_banner>Welcome to blah FTP service.
#
# You may specify a file of disallowed anonymous e-mail addresses. Apparently
# useful for combatting certain DoS attacks.
#deny_email_enable=YES
# (default follows)
#banned_email_file=/etc/vsftpd.banned_emails
#
# You may specify an explicit list of local users to chroot() to their home
# directory. If chroot_local_user is YES, then this list becomes a list of
# users to NOT chroot().
#chroot_list_enable=YES
# (default follows)
#chroot_list_file=/etc/vsftpd.chroot_list
#
# You may activate the "-R" option to the builtin ls. This is disabled by
# default to avoid remote users being able to cause excessive I/O on large
# sites. However, some broken FTP clients such as "ncftp" and "mirror" assume
# the presence of the "-R" option, so there is a strong case for enabling it.
#ls_recurse_enable=YES

pam_service_name=vsftpd
userlist_enable=YES
#enable for standalone mode
listen=YES
tcp_wrappers=YES

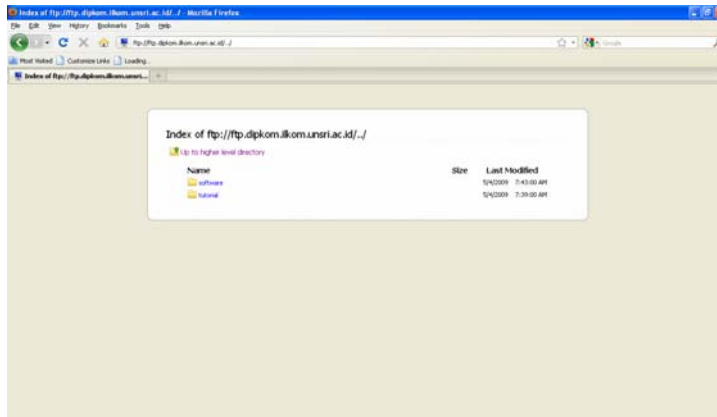
```

Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**

- Restart paket xinetd anda dengan perintah seperti dibawah ini :

```
# service vsftpd restart
```

Setelah itu anda test konfigurasi mail server anda dengan menggunakan web browser anda dengan ketikkan <ftp.dipkom.ilkom.unsri.ac.id> maka akan muncul layar seperti pada gambar dibawah ini



Sharing Internet dan Proxy Server

Sebelum Setting mintalah IP publik ke ISP lengkap dengan netmask, broadcast dan dns-nya. Kemudian tentukan juga IP Lokal yang akan digunakan pada komputer client. Misal pada modul ini ip yang di dapat adalah

IP : 10.100.112.15/24
GATEWAY : 10.100.112.1
DNS : 10.100.112.1

- Settinglah IP pada ethernet-0.

```
# vi /etc/sysconfig/network-scripts/ifcfg-eth0
```

```
DEVICE=eth0  
BOOTPROTO=static  
IPADDR=10.100.112.15  
NETMASK=255.255.255.0  
BROADCAST=10.100.112.255  
NETWORK=10.100.112.0  
ONBOOT=yes
```

Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan **: wq**

- Settinglah IP pada ethernet-1

```
# vi /etc/sysconfig/network-scripts/ifcfg-eth1,
```

```
DEVICE=eth1  
BOOTPROTO=static  
IPADDR=192.168.10.1  
NETMASK=255.255.255.0
```

```
BROADCAST=192.168.10.255
```

```
NETWORK=192.168.10.0
```

Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**

Restart paket xinetd anda dengan perintah seperti dibawah ini :

```
# service network restart
```

- Settinglah HostName, Gateway

```
# vi /etc/sysconfig/network
```

```
NETWORKING=yes
```

```
HOSTNAME=jarkom
```

```
GATEWAY=10.100.112.1
```

Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**

- Setting DNS Resolv

```
# vi /etc/resolv.conf
```

```
nameserver 10.100.112.1
```

```
nameserver 192.168.10.1
```

- Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**
- Restart paket named anda dengan perintah seperti dibawah ini :

```
# service named restart
```

- Setting IP Forwarding, agar paket dari jaringan client dapat berjalan ke jaringan di luarnya melalui gateway.

```
# vi /etc/sysctl.conf
```

```
rubah net.ipv4.ip_forward = 0 menjadi net.ipv4.ip_forward = 1
```

- Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**
- Restart paket xinetd anda dengan perintah seperti dibawah ini :

```
# service network restart
```

- Sekarang lakukan testing dengan ngeping ke:gateway dan website (google.com)

```
# ping 10.100.112.1
```

```
PING 10.100.112.1 (10.100.112.1) 56(84) bytes of data.
```

```
64 bytes from 10.100.112.1: icmp_seq=0 ttl=64 time=0.811 ms
```

```
64 bytes from 10.100.112.1: icmp_seq=1 ttl=64 time=0.822 ms
```

```
64 bytes from 10.100.112.1: icmp_seq=2 ttl=64 time=0.828 ms
```

```
64 bytes from 10.100.112.1: icmp_seq=3 ttl=64 time=0.820 ms
```

```
# ping www.google.com
```

```
PING google.com (66.94.234.13) 56(84) bytes of data.  
64 bytes from w2.rc.vip.scd.google.com (66.94.234.13): icmp_seq=1 ttl=50  
time=778 ms  
64 bytes from w2.rc.vip.scd.google.com (66.94.234.13): icmp_seq=2 ttl=49  
time=769 ms6
```

Jika hasilnya Reply berarti settingnya sudah berhasil.

- Agar client atau jaringan lokal (LAN) yang terhubung dengan sistem linux anda (ke eth1) dapat mengakses internet, maka settinglah NAT IPTables dan Forwarding.

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

```
# vi /etc/rc.d/rc.nat
```

Kemudian ketikkan sbb

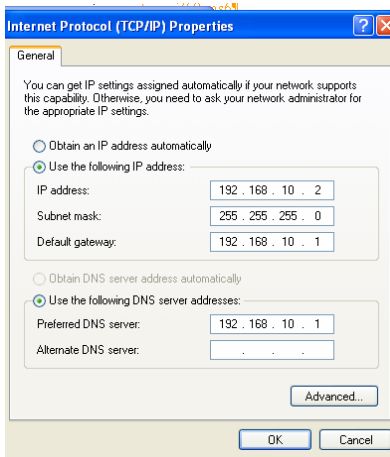
```
#!/bin/sh  
#  
# This script will be executed *after* all the other init scripts.  
# You can put your own initialization stuff in here if you don't  
# want to do the full Sys V style init stuff.  
  
#Hapus aturan default  
/sbin/iptables -F  
/sbin/iptables -F INPUT  
/sbin/iptables -F OUTPUT  
/sbin/iptables -F FORWARD  
/sbin/iptables -t mangle -F  
/sbin/iptables -t nat -F  
/sbin/iptables -t filter -F  
  
#----INPUT dan LoopBack----#  
# Allow unlimited traffic on the loopback interface  
iptables -A INPUT -i lo -j ACCEPT  
iptables -A FORWARD -i lo -j ACCEPT  
iptables -A OUTPUT -o lo -j ACCEPT  
  
# Set default policies/buat jalur tutup semua dan nantinya baru policy open  
iptables -t nat -P PREROUTING ACCEPT  
iptables -t nat -P POSTROUTING ACCEPT  
iptables -t nat -P OUTPUT ACCEPT  
  
iptables -t nat -A POSTROUTING -s 192.168.50.0/27 -j MASQUERADE
```

- Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**

- Ubah Permission file rc.nat
chmod +x /etc/rc.d/rc.nat
- Simpanlah semua hasil konfigurasi di /etc/rc.local, sehingga Anda tidak perlu harus melakukan command-command sebelumnya setiap kali sistem di on-kan atau di-restart. Lakukan langkah berikut

```
# vi /etc/rc.local
:-- Tambahkan script berikut --:
/etc/rc.d/rc.nat
```

- Restart paket iptables anda dengan perintah seperti dibawah ini :
service iptables restart
#/etc/rc.local
- Konfigurasi IP untuk klien, yaitu 192.168.10.2



- Setelah itu anda test konfigurasi sharing server anda dengan menggunakan ping dengan menggunakan cmd (ping ke alamat 10.100.112.1)

```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Tasmi>ping 10.100.112.1

Pinging 10.100.112.1 with 32 bytes of data:

Reply from 10.100.112.1: bytes=32 time=1ms TTL=63
Reply from 10.100.112.1: bytes=32 time=1ms TTL=63
Reply from 10.100.112.1: bytes=32 time=1ms TTL=63
Reply from 10.100.112.1: bytes=32 time=1ms TTL=63

Ping statistics for 10.100.112.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms

C:\Documents and Settings\Tasmi>
```

Kalau hasilnya seperti diatas maka NAT anda sudah berhasil

Test konfigurasi menggunakan web browser di sisi klient anda dengan ketikkan google.com maka akan muncul layar seperti pada gambar dibawah ini



DHCP SERVER – LINUX

```
# rpm -qa|grep dhcp
```

Jika program DHCP belum ada, installah dengan cara sbb. Masukkan CD Rom Redhat #2 dan ketiklah perintah berikut ini.

```
# mount /media/cdrom
# cd RedHat
# ls -l
# cd RPMS
# ls -l dhcp*
# rpm -ivh dhcp*
```

Di REDHAT secara default file dhcpd.conf berada di dalam direktori */usr/share/doc/dhcp-3.0.1*

```
#cd /usr/share/doc/dhcp-3.0.1
```

```
#ls
```

Pada saat gunakan perintah ls maka akan tampil file **dhcpd.conf.sample**.

File ini harus kita copy ke direktori /etc

```
#cp dhcpd.conf.sample /etc/dhcpd.conf
```

Kemudian Edit file dhcpd.conf

```
# cd /etc
```

```
# vi dhcpd.conf
```

Kita edit bagian disini (bagian ini sebuah bagian penulis berikan tanda # agar perintah di file dhcp menjadi komentar)

```
ddns-update-style interim;
```

```
ignore client-updates;
```

```
#subnet 192.168.0.0 netmask 255.255.255.0 {
```

```
# --- default gateway
```

```
#   option routers          192.168.0.1;
```

```
#   option subnet-mask     255.255.255.0;
```

```
#   option nis-domain       "domain.org";
```

```
#   option domain-name     "domain.org";
```

```
#   option domain-name-servers 192.168.1.1;
```

```
        # option time-offset      -18000; # Eastern Standard Time
```

```
#   option ntp-servers      192.168.1.1;
```

```
#   option netbios-name-servers 192.168.1.1;
```

```
# --- Selects point-to-point node (default is hybrid). Don't change this unless
```

```
# -- you understand Netbios very well
```

```
#   option netbios-node-type 2;
```

```
# range dynamic-bootp 192.168.0.128 192.168.0.254;
```

```
#   default-lease-time 21600;
```

```
#   max-lease-time 43200;
```

```
        # we want the nameserver to appear at a fixed address
```

```
# host ns {
```

```
#   next-server marvin.redhat.com;
```

```
#   hardware ethernet 12:34:56:78:AB:CD;
```



```

        # fixed-address 207.175.42.254;
    #}
#}

```

Tambahkan perintah sebagai berikut

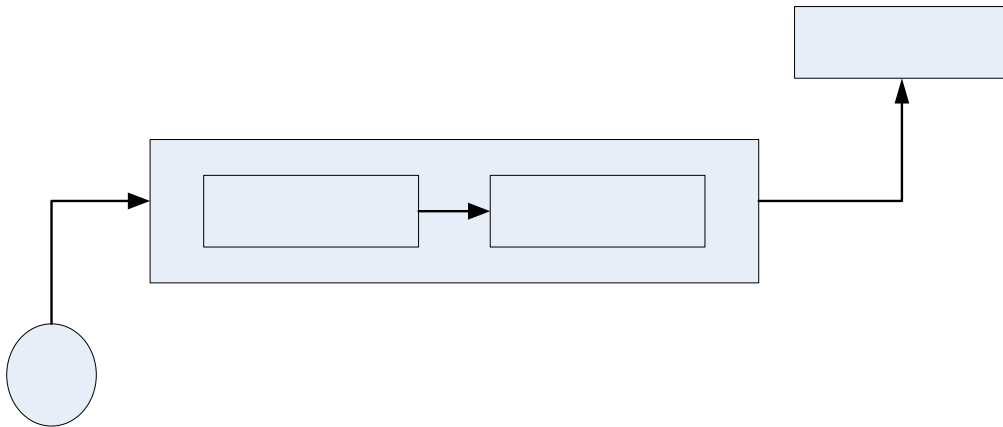
```

subnet 192.168.10.0 netmask 255.255.255.0 {
    range 192.168.10.2 192.168.10.20;
    option domain-name "ilkom.unsri.ac.id";
    option domain-name-servers 192.168.10.1;
    option broadcast-address 192.168.10.255;
    option routers 192.168.10.1;
    option subnet-mask 255.255.255.0;
}

```

- Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**
- Restart paket iptables anda dengan perintah seperti dibawah ini :
service dhcpd restart

Proxy Server



Setting untuk proxy awalnya hampir sama dengan setting untuk sharing internet tetapi di bagian NAT nya kita direct ke port yang kita tuju dan juga kita harus mengaktifkan squid di linux

- Settinglah IP pada ethernet-0.

```
# vi /etc/sysconfig/network-scripts/ifcfg-eth0
```

```
DEVICE=eth0
BOOTPROTO=static
IPADDR=10.100.112.15
NETMASK=255.255.255.0
BROADCAST=10.100.112.255
NETWORK=10.100.112.0
ONBOOT=yes
```

Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**

- Settinglah IP pada ethernet-1

```
# vi /etc/sysconfig/network-scripts/ifcfg-eth1,
```

```
DEVICE=eth1
BOOTPROTO=static
IPADDR=192.168.10.1
NETMASK=255.255.255.0
BROADCAST=192.168.10.255
NETWORK=192.168.10.0
```

Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**

Restart paket xinetd anda dengan perintah seperti dibawah ini :

```
# service network restart
```

- Settinglah HostName, Gateway

```
# vi /etc/sysconfig/network
NETWORKING=yes
HOSTNAME=jarkom
GATEWAY=10.100.112.1
```

Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**

- Setting DNS Resolv

```
# vi /etc/resolv.conf
nameserver 10.100.112.1
nameserver 192.168.10.1
```

- Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**
- Restart paket named anda dengan perintah seperti dibawah ini :

```
# service named restart
```

- Setting IP Forwarding, agar paket dari jaringan client dapat berjalan ke jaringan di luarnya melalui gateway.

```
# vi /etc/sysctl.conf
rubah net.ipv4.ip_forward = 0 menjadi net.ipv4.ip_forward = 1
```

- Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**
- Restart paket xinetd anda dengan perintah seperti dibawah ini :

```
# service network restart
```

- Sekarang lakukan testing dengan ngeping ke:gateway dan website (google.com)

```
# ping 10.100.112.1
```

```
PING 10.100.112.1 (10.100.112.1) 56(84) bytes of data.
64 bytes from 10.100.112.1: icmp_seq=0 ttl=64 time=0.811 ms
64 bytes from 10.100.112.1: icmp_seq=1 ttl=64 time=0.822 ms
64 bytes from 10.100.112.1: icmp_seq=2 ttl=64 time=0.828 ms
64 bytes from 10.100.112.1: icmp_seq=3 ttl=64 time=0.820 ms
```

```
# ping www.google.com
```

```
PING google.com (66.94.234.13) 56(84) bytes of data.
64 bytes from w2.rc.vip.scd.google.com (66.94.234.13): icmp_seq=1
ttl=50 time=778 ms
64 bytes from w2.rc.vip.scd.google.com (66.94.234.13): icmp_seq=2
ttl=49 time=769 ms6
```

Jika hasilnya Reply berarti settingnya sudah berhasil.

- Agar client atau jaringan lokal (LAN) yang terhubung dengan sistem linux anda (ke eth1) dapat mengakses internet, maka settinglah NAT IPTables dan Forwarding.

```
# /etc/init.d/iptables stop
# vi /etc/rc.d/rc.nat
```

Kemudian ketikkan sbb

```
#!/bin/sh
#
# This script will be executed *after* all the other init scripts.
# You can put your own initialization stuff in here if you don't
# want to do the full Sys V style init stuff.

#Hapus aturan default
/sbin/iptables -F
/sbin/iptables -F INPUT
/sbin/iptables -F OUTPUT
/sbin/iptables -F FORWARD
/sbin/iptables -t mangle -F
/sbin/iptables -t nat -F
/sbin/iptables -t filter -F

#-----INPUT dan LoopBack-----#
# Allow unlimited traffic on the loopback interface
iptables -A INPUT -i lo -j ACCEPT
iptables -A FORWARD -i lo -j ACCEPT
iptables -A OUTPUT -o lo -j ACCEPT

# Set default policies/buat jalur tutup semua dan nantinya baru
policy open
iptables -t nat -P PREROUTING ACCEPT
iptables -t nat -P POSTROUTING ACCEPT
iptables -t nat -P OUTPUT ACCEPT
```

```
iptables -t nat -A POSTROUTING -s 192.168.50.0/27 -j MASQUERADE
iptables -t nat -A PREROUTING -p tcp -i eth1 --dport 80 -j REDIRECT
--to-port 3128
```

- Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan **: wq**
- Ubah Permission file rc.nat
chmod +x /etc/rc.d/rc.nat
- Simpanlah semua hasil konfigurasi di /etc/rc.local, sehingga Anda tidak perlu harus melakukan command-command sebelumnya setiap kali sistem di on-kan atau di-restart. Lakukan langkah berikut

```
# vi /etc/rc.local
:-- Tambahkan script berikut --:
    /etc/rc.d/rc.nat
```

- Restart paket iptables anda dengan perintah seperti dibawah ini :
service iptables restart
#/etc/rc.local

- Setting Squid
Sebelum kita setting sebaik kita ganti dulu file squid.conf dengan perintah
#/etc/squid/mv squid.conf squid_lamo.conf

Kemudian kita buat file squid.conf dengan perintah
#/etc/squid/vi squid.conf

Kemudian ketikkan isi di file squid seperti di bawah ini
(Pada kasus ini kita hanya membuat rule klient tidak bisa membuka /mengkases situs atau kata kunci yang sudah kita list)

```
#Redirect port 80 ke port 3128
http_port 3128

#Alokasi memori penyimpanan data sementara (perhatikan nial ram
anda)
cache_mem 64 MB

#Data yang > 4MB tidak di simpan di hardisk
maximum_object_size 4096 KB

#Lokasi penyimpanan cache
maximum_object_size 4096 KB

#Hak Akses
acl all src 0.0.0.0/0.0.0.0
acl manager proto cache_object
acl localhost src 127.0.0.1/255.255.255.255
acl lan src 192.168.60.0/255.255.255.0
```

```

acl domain_terlarang dstdomain "/etc/squid/domain_terlarang.txt"
acl kata_blacklist url_regex -i "/etc/squid/kata_blacklist.txt"
acl SSL_ports port 443 563
acl Safe_ports port 80 81 21 20 443 563 70 210 1025-65535
acl Safe_ports port 280      # http-mgmt
acl Safe_ports port 488      # gss-http
acl Safe_ports port 591      # filemaker
acl Safe_ports port 777      # multiling http
acl icq_ports port 5190      # ICQ login port
acl irc_ports port 6667-7007 # mIRC port

http_access deny !Safe_ports
http_access deny lan domain_terlarang
http_access deny lan kata_blacklist
http_access allow lan
http_access allow manager localhost
http_access deny manager

cache_mgr admin.ilkom@unsri.ac.id
visible_hostname admin.ilkom.unsri.ac.id
httpd_accel_host virtual
httpd_accel_port 80
httpd_accel_with_proxy on
httpd_accel_uses_host_header on

```

- Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**
- Buat dile domain_terlarang.txt


```

#vi /etc/squid/domain_terlarang.txt
17tahun.com
www.17tahun.com
dll

```
- Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**
- Buat file kata_blacklist.txt
- #vi /etc/squid/ **kata_blacklist.txt**

```

sex
porno
dada
dll

```
- Simpan file konfigurasi anda dengan cara tekan **Esc** kemudian anda tekan : **wq**
- Kemudian aktifkan squidnya dengan perintah


```

#service squid restart

```

Test konfigurasi menggunakan web browser di sisi klient anda dengan ketikkan google.com, kemudian di kolom search enginenya ketikan kata sex, maka akan muncul layar seperti pada gambar dibawah ini