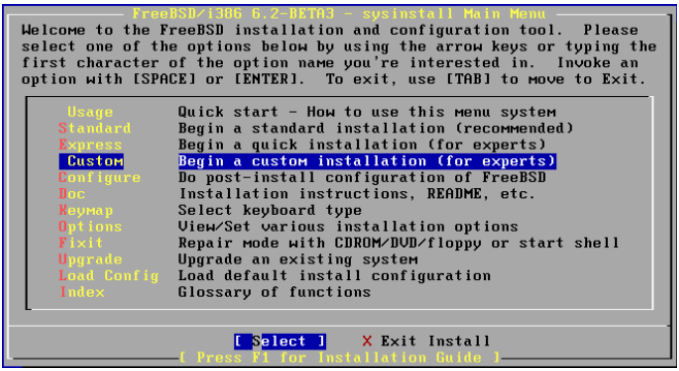
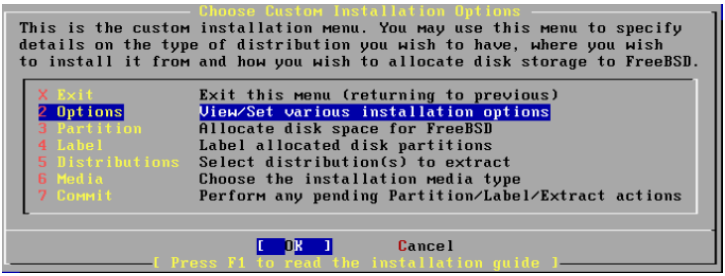
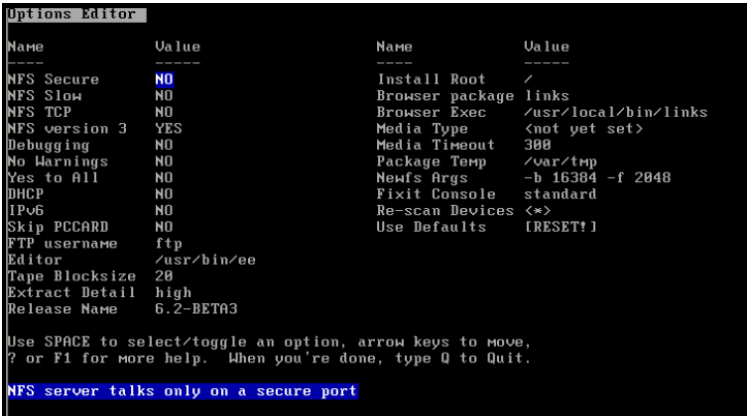
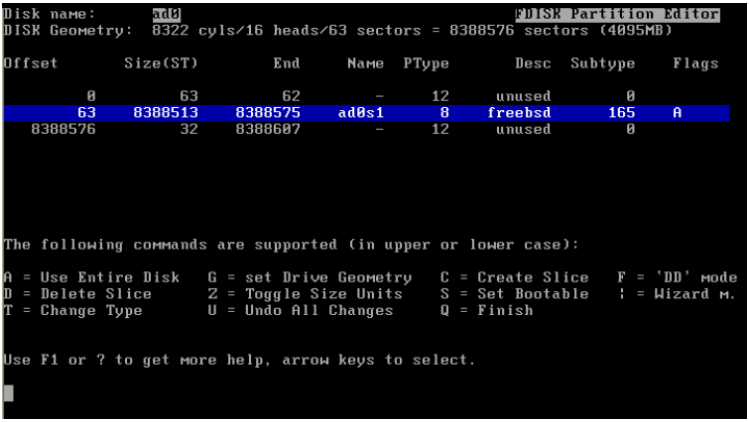
LAMPIRAN I

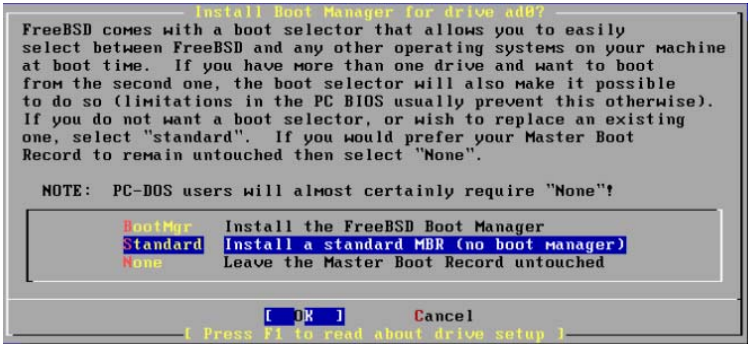
INSTALASI FREEBSD

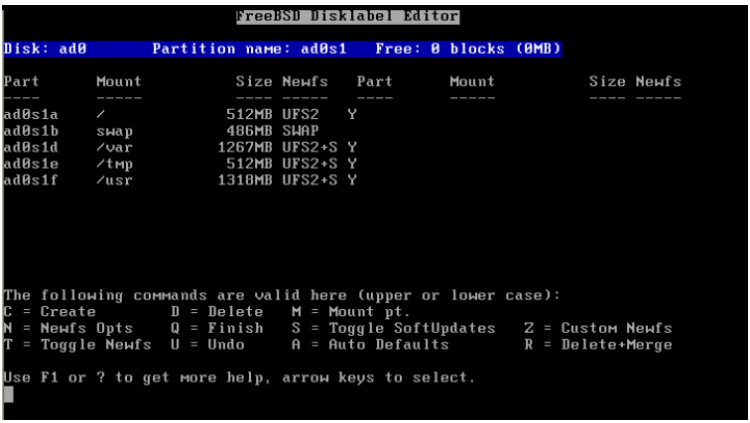


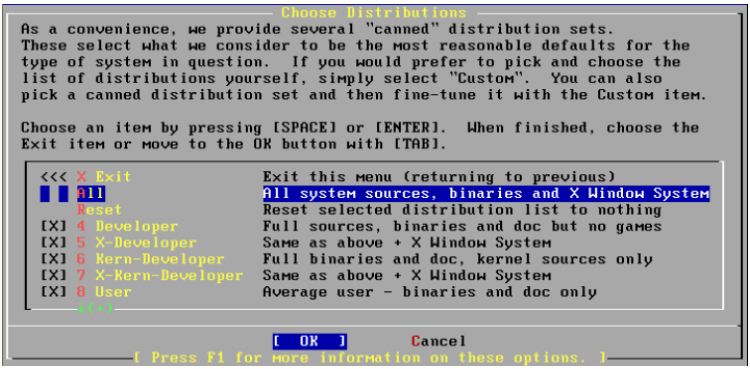

Choose Custom Installation Options
This is the custom installation menu. You may use this menu to specify
details on the type of distribution you wish to have, where you wish
to install it from and how you wish to allocate disk storage to FreeBSD.
X Exit
Exit this menu (returning to previous)
2 Options
View/Set various installation options
3 Partition
Allocate disk space for FreeBSD
4 Label
Label allocated disk partitions
5 Distributions
Select distribution(s) to extract
6 Media
Choose the installation media type
7 Commit
Perform any pending Partition/Label/Extract actions
[OK]
Cancel
[Press F1 to read the installation guide]

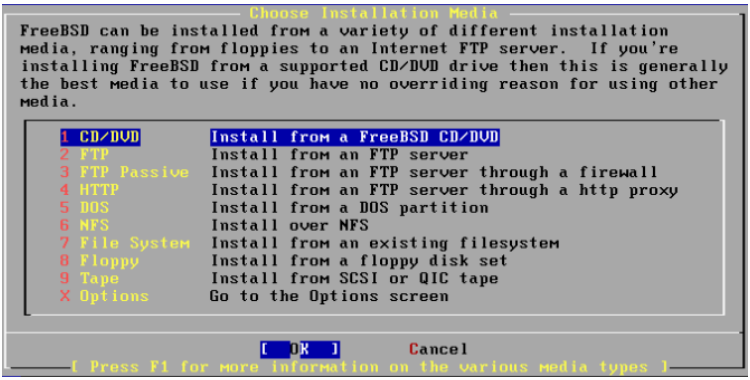

Options Editor
Name
Value
Name
Value
NFS Secure
NO
Install Root
/
NFS Slow
NO
Browser package
links
NFS TCP
NO
Browser Exec
/usr/local/bin/links
NFS version 3
YES
Media Type
<not yet set>
Debugging
NO
Media Timeout
300
No Warnings
NO
Package Temp
/var/tmp
Yes to All
NO
Newfs Args
-b 16384 -f 2048
DHCP
NO
Fixit Console
standard
IPv6
NO
Re-scan Devices
<*>
Skip PCCARD
NO
Use Defaults
[RESET!]
FTP username
ftp
Editor
/usr/bin/ee
Tape Blocksize
20
Extract Detail
high
Release Name
6.2-BETA3
Use SPACE to select/toggle an option, arrow keys to move,
? or F1 for more help. When you're done, type Q to Quit.
NFS server talks only on a secure port

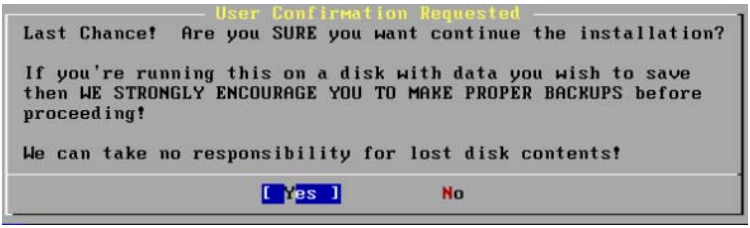

Disk name:
ad0
FDISK Partition Editor
DISK Geometry: 8322 cyls/16 heads/63 sectors = 8388576 sectors (4095MB)
Offset
Size(ST)
End
Name
PType
Desc
Subtype
Flags
0
63
62
-
12
unused
0
63
8388513
8388575
ad0s1
8
freebsd
165
A
8388576
32
8388607
-
12
unused
0
The following commands are supported (in upper or lower case):
A = Use Entire Disk
G = set Drive Geometry
C = Create Slice
F = 'DD' mode
D = Delete Slice
Z = Toggle Size Units
S = Set Bootable
| = Wizard m.
T = Change Type
U = Undo All Changes
Q = Finish
Use F1 or ? to get more help, arrow keys to select.

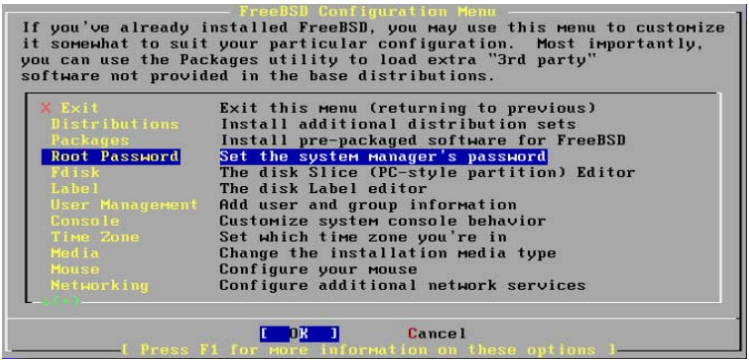

Install Boot Manager for drive ad0?
FreeBSD comes with a boot selector that allows you to easily
select between FreeBSD and any other operating systems on your machine
at boot time. If you have more than one drive and want to boot
from the second one, the boot selector will also make it possible
to do so (limitations in the PC BIOS usually prevent this otherwise).
If you do not want a boot selector, or wish to replace an existing
one, select "standard". If you would prefer your Master Boot
Record to remain untouched then select "None".
NOTE: PC-DOS users will almost certainly require "None"!
BootMgr Install the FreeBSD Boot Manager
Standard Install a standard MBR (no boot manager)
None Leave the Master Boot Record untouched
[OK]
Cancel
[Press F1 to read about drive setup]

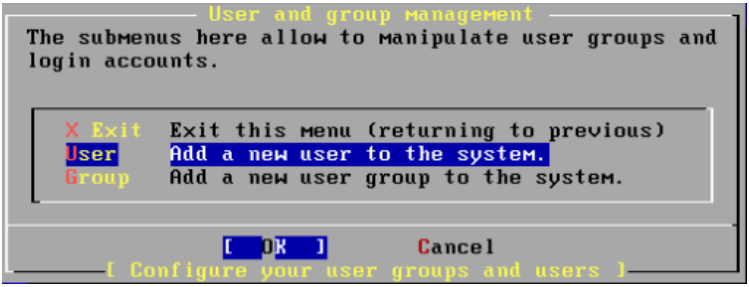

FreeBSD Disklabel Editor
Disk: ad0 Partition name: ad0s1 Free: 0 blocks (0MB)
Part Mount Size Newfs Part Mount Size Newfs
ad0s1a / 512MB UFS2 Y
ad0s1b swap 486MB SWAP
ad0s1d /var 1267MB UFS2+S Y
ad0s1e /tmp 512MB UFS2+S Y
ad0s1f /usr 1318MB UFS2+S Y
The following commands are valid here (upper or lower case):
C = Create D = Delete M = Mount pt.
N = Newfs Opts Q = Finish S = Toggle SoftUpdates Z = Custom Newfs
T = Toggle Newfs U = Undo A = Auto Defaults R = Delete+Merge
Use F1 or ? to get more help, arrow keys to select.

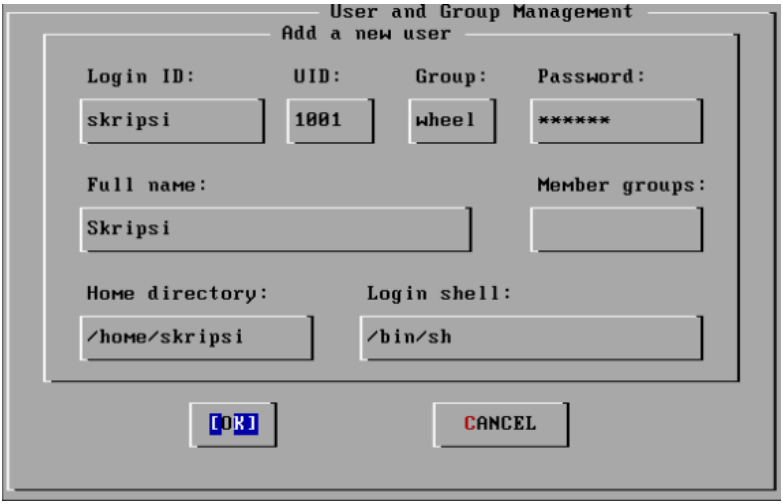

Choose Distributions
As a convenience, we provide several "canned" distribution sets.
These select what we consider to be the most reasonable defaults for the
type of system in question. If you would prefer to pick and choose the
list of distributions yourself, simply select "Custom". You can also
pick a canned distribution set and then fine-tune it with the Custom item.
Choose an item by pressing [SPACE] or [ENTER]. When finished, choose the
Exit item or move to the OK button with [TAB].
<<< X Exit
All
Reset
[X] 4 Developer
[X] 5 X-Developer
[X] 6 Kern-Developer
[X] 7 X-Kern-Developer
[X] 8 User
Exit this menu (returning to previous)
All system sources, binaries and X Window System
Reset selected distribution list to nothing
Full sources, binaries and doc but no games
Same as above + X Window System
Full binaries and doc, kernel sources only
Same as above + X Window System
Average user - binaries and doc only
[OK]
Cancel
[Press F1 for more information on these options.]

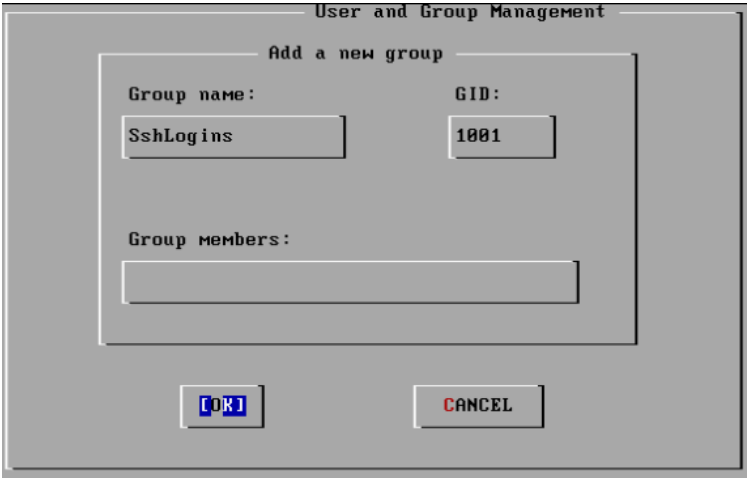

Choose Installation Media
FreeBSD can be installed from a variety of different installation
media, ranging from floppies to an Internet FTP server. If you're
installing FreeBSD from a supported CD/DVD drive then this is generally
the best media to use if you have no overriding reason for using other
media.
1 CD/DVD
2 FTP
3 FTP Passive
4 HTTP
5 DOS
6 NFS
7 File System
8 Floppy
9 Tape
X Options
Install from a FreeBSD CD/DVD
Install from an FTP server
Install from an FTP server through a firewall
Install from an FTP server through a http proxy
Install from a DOS partition
Install over NFS
Install from an existing filesystem
Install from a floppy disk set
Install from SCSI or QIC tape
Go to the Options screen
[OK]
Cancel
[Press F1 for more information on the various media types]


User Confirmation Requested
Last Chance! Are you SURE you want continue the installation?
If you're running this on a disk with data you wish to save
then WE STRONGLY ENCOURAGE YOU TO MAKE PROPER BACKUPS before
proceeding!
We can take no responsibility for lost disk contents!
[Yes]
No


FreeBSD Configuration Menu
If you've already installed FreeBSD, you may use this menu to customize
it somewhat to suit your particular configuration. Most importantly,
you can use the Packages utility to load extra "3rd party"
software not provided in the base distributions.
X Exit Exit this menu (returning to previous)
Distributions Install additional distribution sets
Packages Install pre-packaged software for FreeBSD
Root Password Set the system manager's password
Fdisk The disk Slice (PC-style partition) Editor
Label The disk Label editor
User Management Add user and group information
Console Customize system console behavior
Time Zone Set which time zone you're in
Media Change the installation media type
Mouse Configure your mouse
Networking Configure additional network services
[OK] Cancel
[Press F1 for more information on these options]


User and group management
The submenus here allow to manipulate user groups and
login accounts.
X Exit Exit this menu (returning to previous)
User Add a new user to the system.
Group Add a new user group to the system.
[OK] Cancel
[Configure your user groups and users]


User and Group Management
Add a new user
Login ID:
UID:
Group:
Password:
skripsi
1001
wheel
******
Full name:
Member groups:
Skripsi
Home directory:
Login shell:
/home/skripsi
/bin/sh
[OK]
CANCEL


User and Group Management
Add a new group
Group name:
GID:
SshLogins
1001
Group members:
[OK]
CANCEL

LAMPIRAN II

Konfigurasi Sistem operasi FreeBSD untuk Server Gateway

1. login sebagai root

2. masukan password 12345

3. copy GENERIC menjadi ROUTER
   #cd /usr/src/sys/i386/conf
   #cp GENERIC ROUTER

4. Edit kernel (ROUTER)

   #ee ROUTER
   Masukan option-option berikut:

```
ident       ROUTER
device      pf
device      pflog
device      pfsync
device      carp
options     ALTQ
options     BRIDGE
options     ALTQ_CBQ
options     ALTQ_RED
options     ALTQ_RIO
options     ALTQ_HFSC
options     ALTQ_CDNR
options     ALTQ_PRIQ
device      atapicam
options     HZ=1000
options     MSGMNB=32768
options     MSGMNI=82
options     MSGSEG=4098
options     MSGSSZ=128
options     MSGTQL=2048

options     SEMMSL=100
options     SEMMNS=32000
options     SEMOPM=100
options     SEMMNI=100
options     SHMMAX=2147483647
```

```
options     SHMMNI=4096
options     SHMALL=2097152

options     IPDIVERT
options     IPFIREWALL
options     IPFIREWALL_VERBOSE
options     IPFIREWALL_VERBOSE_LIMIT=100
options     IPFIREWALL_DEFAULT_TO_ACCEPT
options     DUMMYNET
```

tekan ctrl+c
lalu ketik **exit** untuk menyimpan

5. Recompile kernel

```
config ROUTER
cd ../compile/ROUTER
make depend
make
make install
```

6. Masuk ke **rc.conf** dan edit

#ee /etc/rc.conf

Masukan option-option berikut:

```
inetd_enable=”YES”
gateway_enable=”YES”
sshd_enable=”YES”
firewall_enable=”YES”
firewall_type=”OPEN”
natd_enable=”YES”
natd_interface=”sis0″
named_enable=”YES”
network_interfaces=”rl0 rl1 lo0 ”
ifconfig_rl1=”inet 192.168.2.1 netmask 255.255.255.0″
ifconfig_rl0=”inet 192.168.1.2 netmask 255.255.255.252″
defaultrouter=”192.168.1.1″
kern_securelevel_enable=”NO”
nfs_reserved_port_only=”YES”
sendmail_enable=”NONE”
hostname=”Server”
pf_enable=”YES”
```

tekan ctrl+c
lalu ketik exit untuk menyimpan

7. Masukan DNS server pada **resolv.conf**

   #ee /etc/resolv.conf

   Masukan options berikut:

   nameserver 202.134.0.155

   tekan ctrl+c
   lalu ketik **exit** untuk menyimpan

8. Setting Bandwidth Management pada **pf.conf**

   #cd /etc/

   #ee **pf.conf**

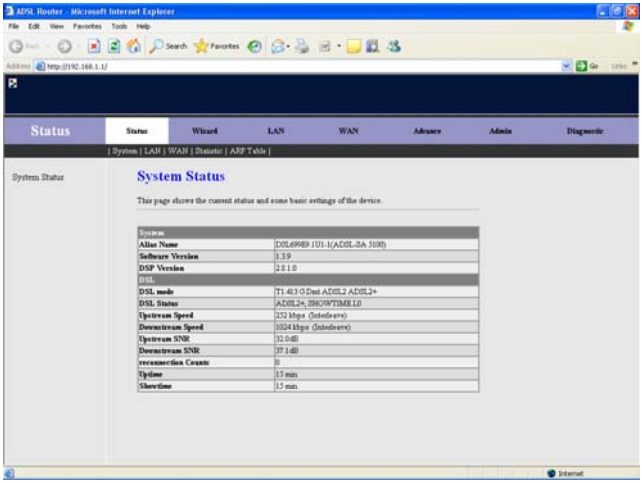
   Masukan option-option berikut:

   ext_if = “rl0”
   int_if = “sis0”
   internal_net = “192.168.1.1/24”
   external_addr = “192.168.2.1”
   altq on $ext_if bandwidth 1 Mb cbq queue {default, server, akuntan, produksi}
   queue default bandwidth 100Kb cbq (default)
   queue server bandwidth 250Kb
   queue akuntan bandwidth 200Kb
   queue produksi bandwidth 100 Kb
   Pass out on $ext_if from any to 192.168.2.11 keep state queue client
   Pass out on $ext_if from any to 192.168.2.12 keep state queue client
   Pass out on $ext_if from any to 192.168.2.13 keep state queue client
   Pass out on $ext_if from any to 192.168.2.14 keep state queue client
   Pass out on $ext_if from any to 192.168.2.15 keep state queue client
   Pass out on $ext_if from any to 192.168.2.16 keep state queue client
   Pass out on $ext_if from any to 192.168.2.17 keep state queue client
   tekan ctrl+c
   lalu ketik **exit** untuk menyimpan
   lalu reboot
   #reboot

LAMPIRAN III

Instalisasi *Modem*

Modem yang digunakan telah dikonfigurasi secara *default* oleh pihak ISP. *IP address* pada modem adalah 192.168.1.1.



Gambar LIII.1 ***Mac Address Filtering***

LAMPIRAN IV

Instalisasi dan Konfigurasi *Access Point*

Pada pengujian penempatan *access point* ini,terdapat beberapa konfigurasi yang harus dilakukan, antara lain :

1. Pengalamatan IP

Alamat IP yang diberikan pada *access point* adalah 192.168.2.5, sedangkan SSID-nya adalah zhyma.

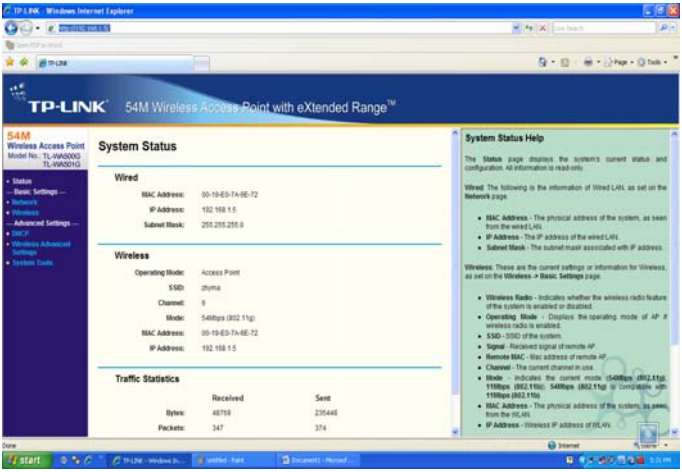
- **Login**

  Untuk masuk ke dalam *access point*, digunakan *web browser* dari notebook lain dengan alamat *access point* 192.168.2.5 Password default *access point* adalah zhyma.

Gambar LV.1 *Login Admin Access Point*

- **Setup Network Access Point**

Pada *setup access point* terdapat *name device* dan *configuration* seperti terlihat pada gambar LV.2 :

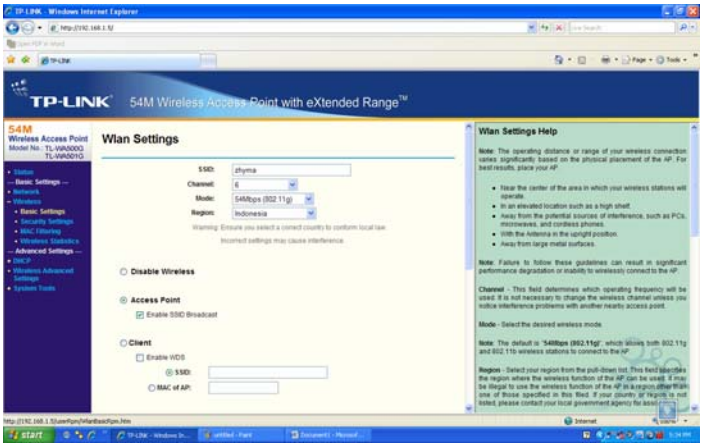


Gambar LV.2 *setup network access point*

configuration setup berupa *IP address* 192.168.2.5 *subnetmask* 255.255.255.0, *default gateway* 192.168.2.1 dengan pengalamatan *static*.

2. *Channel* Frekuensi dan SSID (*Service Set Identifier*).

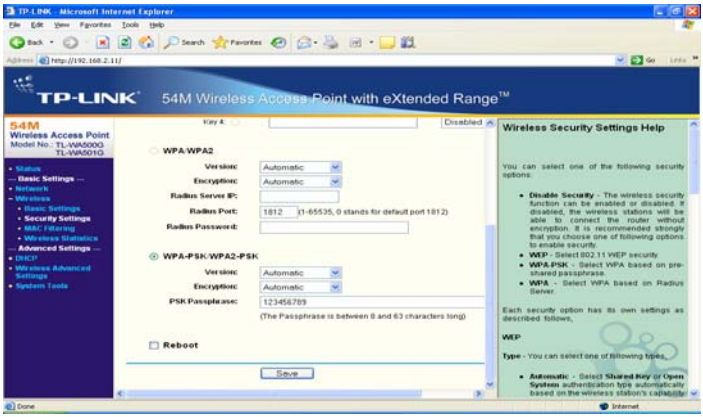
Standar yang dipakai adalah 802.11g dan b memiliki tiga channel *non-overlapping*, yaitu channel 11. Sedangkan SSID yang akan digunakan adalah zhyma lihat pada gambar LV.3;



Gambar LV.3 *Setting Channel* dan SSID

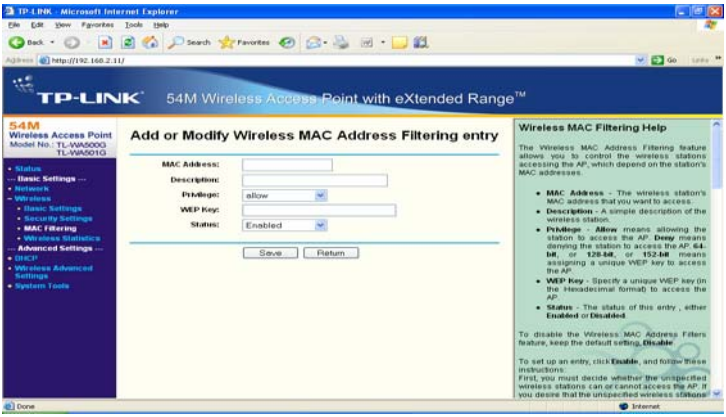
3. Keamanan Jaringan

Penggunaan keamanan jaringan adalah hal yang paling pokok, agar tidak ada user yang tidak memiliki wewenang masuk kedalam jaringan *MAN* ini.



Gambar LV.4 *setting security* protocol WPA

Pemakaian keamanan jaringan yang digunakan pada gambar LV4 adalah teknik WPA dengan *password* 123456789.Untuk memperkuat keamanan jaringan maka akan ditambahkan dengan *mac address filtering* karena transmisi data dengan menggunakan jaringan nirkabel merupakan kategori *unguided media*, sehingga sebaran paket data yang dipancarkan oleh *access point* dapat di - *capture* semua peralatan yang suppport frekuensi tersebut. Jika jaringan tersebut terhubung ke jaringan *internet* dengan *bandwidth* yang terbatas, maka akan terjadi *traffic* yang padat, hal ini diakibatkan lebar pita yang terbatas, sementara paket data yang melakukan *request* ke jaringan tidak dibatasi.



Gambar LV.5 *Mac Address Filtering*

Dengan adanyan *mac Address Filtering* yang terlihat pada gambar LV.5 maka hanya perangkat yang dikenal *Access point* saja yang dapat terhubung ke jaringan.