LAMPIRAN I

INSTALASI FREEBSD

Please	- Country Selection
Select	an item using [SPACE] or [ENTER].
	Jaaland
191	India
192	Indonesia
183	Iran
184	Irag
185	Ireland
106	Isle of Man
187	Israel
198	Italy
109	Jamaica
110	Japan
112	Jersey
113	Vazakhstan
	AuZukhStull
	Cancel

Welcome to the select one of t first character option with ISP	TSDC1005 6.2.00700 - southeatell the ream FreeBSD installation and configuration tool. Please he options below by using the arrow keys or typing the of the option name you're interested in. Invoke an ACE] or [ENTER]. To exit, use [TAB] to move to Exit.
Usage Standard Express Custom Configure Doc Reymap Options Fixit Upgrade Load Config Index	Quick start - How to use this menu system Begin a standard installation (recommended) Begin a quick installation (for experts) Begin a custom installation (for experts) Do post-install configuration of FreeBSD Installation instructions, README, etc. Select keyboard type Uiew/Set various installation options Repair mode with CDROM/DUD/floppy or start shell Upgrade an existing system Load default install configuration Glossary of functions
	[Splect] X Exit Install — [Press F1 for Installation Guide]



Options Editor			
Nаме	Value	Nаме	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 set="" yet=""></not>
Debugging	NO	Media Timeout	300
No Warnings	NO	Package Темр	/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 sel	lect∕toggle an option, a	rrow keys to move	э,
? or F1 for more	e help. When you're done	e, type Q to Qui	
NFS server talks	s only on a secure port		

m · 1								
	(name: / Caavata	aau 	ula (16 haada (c2t-		FUISK	Partition	Editor
n 1 2 1	Geometr	y. 6322 C	Alsi to unarra	os secto	rs - 030	00070 Secil	JES (4095M	Б)
Offs	set	Size(ST)	End	Nаме	РТуре	Desc	Subtype	Flags
	0	63	62		12	unused	0	
	63	8388513	8388575	ad0s1	8	freebsd	165	A
6	8388576	32	8388607		12	unused	0	
The	followin	а соммалds	are sunnorte	d (in un	ner or 1	lower case)	:	
110		9 0011141140	are supporte	a th ap	per or ,			
A =	Use Enti	re Disk	G = set Drive	Geometr	y C =	Create Sli	ice F =	'DD' mode
D =	Delete S	lice	Z = Toggle Si	ze Units		Set Bootal	ole :=	Wizard м.
T =	Change T	'ype	U = Undo All	Changes	Q =	Finish		
Use	F1 or ?	to get mor	e help, arrow	ı 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
Cance l
Press F1 to read about drive setum 1

		FreeB	SD Disk	label Edite	or		
Disk: adØ	Partiti	on name	: adØs1	Free: 0	blocks	(ØMB)	
Part	Mount	Size	Newfs	Part	Mount	:	Size Newfs
ad0s1a ad0s1b ad0s1d ad0s1d ad0s1f	/ sнар /var /tmp /usr	512MB 486MB : 1267MB 512MB 1318MB	UFS2 SWAP UFS2+S UFS2+S UFS2+S	Y Y Y Y Y			
The follow C = Create N = Newfs T = Toggle Use F1 or	wing commands e D = D Opts Q = F e Newfs U = U ? to get more	are val elete inish ndo help, s	id here M = Mo S = To A = Au аrrow k	(upper or unt pt. ggle SoftU to Defaults eys to self	lower са pdates s ect.	ase): Z = Cust R = Delo	tom Newfs ete+Merge

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	Install from a FreeBSD CD/DVD
2 FTP	Install from an FTP server
3 FTP Passive	Install from an FTP server through a firewall
4 HTTP	Install from an FTP server through a http proxy
5 DOS	Install from a DOS partition
6 NFS	Install over NFS
7 File System	Install from an existing filesystem
8 Floppy	Install from a floppy disk set
9 Tape	Install from SCSI or QIC tape
X Options	Go to the Options screen
-	
	Cancel
I Press F1 for	r 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!

tt this мели (returning to previous) stall additional distribution sets stall pre-packaged software for FreeBSD
stall additional distribution sets stall pre-packaged software for FreeBSD
stall pre-packaged software for FreeBSD
t the system manager's password
e disk Slice (PC-style partition) Editor
e disk Label editor
l user and group information
stomize system console behavior
t which time zone you're in
inge the installation media type
nfigure your mouse
nfigure additional network services



	User Add a ne	and Group w user	Management]
Login ID:	UID:	Group:	Password:
skripsi	1001	whee l	*****
Full name:			Member groups:
Skripsi			
Home directory:	I	ogin shell:	
∕home∕skripsi		′bin∕sh	
[OK]]	CANC	EL

Usu	er and Group Management
Add a s	new group
Group паме:	GID:
SshLog ins	1991
Group members:	
10 20	CANCEL

Lampiran II

Instalasi Sistem Operasi FressBSD untuk Server Gateway

- 1. login sebagai root
- 2. masukan password 12345
- 3. copy GENERIC menjadi ROUTER

#cd /urs/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="sis0 rl0 lo0" ifconfig_sis0="inet 192.168.1.2 netmask 255.255.255.0" ifconfig_rl0="inet 192.168.2.1 netmask 255.255.255.252" defaultrouter="192.168.1.1" kernel_securelevel_enable="NO" nfs_reserved_port_only="YES" sendmail_enable="NONE" hostname="Server" pf enable="YES"

dhcp_program="/sbin/dclient" dhcp_flags="" dhcpd_enable="YES" dhcpd_ifaces="rl0"

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, direktur, staff} queue default bandwidth 50Kb cbq (default) queue direktur bandwidth 100Kb queue staff bandwidth 50Kb Pass out on \$ext_if from any to 192.168.2.10 keep state queue direktur Pass out on \$ext_if from any to 192.168.2.11 keep state queue direktur Pass out on \$ext_if from any to 192.168.2.12 keep state queue direktur Pass out on \$ext_if from any to 192.168.2.12 keep state queue direktur Pass out on \$ext_if from any to 192.168.2.13 keep state queue staff Pass out on \$ext_if from any to 192.168.2.14 keep state queue staff Pass out on \$ext_if from any to 192.168.2.15 keep state queue staff Pass out on \$ext_if from any to 192.168.2.16 keep state queue staff Pass out on \$ext_if from any to 192.168.2.17 keep state queue staff Pass out on \$ext_if from any to 192.168.2.18 keep state queue staff Pass out on \$ext_if from any to 192.168.2.19 keep state queue staff Pass out on \$ext_if from any to 192.168.2.20 keep state queue staff Pass out on \$ext_if from any to 192.168.2.21 keep state queue staff Pass out on \$ext_if from any to 192.168.2.21 keep state queue staff Pass out on \$ext_if from any to 192.168.2.22 keep state queue staff Pass out on \$ext_if from any to 192.168.2.23 keep state queue staff Pass out on \$ext_if from any to 192.168.2.24 keep state queue staff Pass out on \$ext_if from any to 192.168.2.24 keep state queue staff

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

lalu reebot

#reboot

LAMPIRAN III

Instalisasi 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 192.168.2.8, sedangkan SSID-nya adalah tetra

Login

Untuk masuk ke dalam *access point*, digunakan *web browser* dari notebook lain dengan alamat *access point* 192.168.2.8. Password default *access point* adalah admin.

Connect to 192	2.168.2.11 🛛 🖓 🔀
	GR
TP-LINK Wireless	AP WA501G
<u>U</u> ser name:	🖸 tetra 💌
Password:	•••••
	Remember my password
	OK Cancel

Gambar L1I.1 Login Admin Access Point

Setup Network Access Point

_

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

TP.LINK. Microsoft letter	reet Explorer			<u>5</u> (6)
the GR year Faceton	Int its			4
G tat + () 1	🗟 🙆 🔎 5440 🤟	Frontes @ B.	🖕 🖂 • 🔜 🛍	
101-11 (1419-0710-148-2 AF				
411				
TP-LIN	K 54M Wir	eless Access R	ant with eXtended	I Range™
54M				System Status Help
Wireless Access Point Model Nr. TL-WA5003	System Statu	s		The Dates over design the better's count
TL-W#801G	Milered			status and configuration. All information is read-
Status Basic Settings	wrea	Variation and and		
Belgerit.	MAC ABBOVE	00-10-0P-62-69-58		Whend The following is the information of Vitradi CASE as set on the Betweek page
Advanced Settings	Endered Hards	100,100.2.0		
(HIL)	Autor Basis.	110.017.010.0		 Mac. Address - The physical address of the notions, as seen from the wired UNI
Secondary Advanced	Wireless			P Address - The IP address of the wined LAR
System Teals	Operation Mode:	Clark		 Sidest Mask - The subnet mask associated with P address
	Signal			ALL AND MALE AND ALL AND A
	SSID	144		Warniess. These are the surrent settings or information for Wineless, as set on the Warniess
	Charent	1		⇒ Basic Settings page.
	Mode	1198000-00221100		Wireless Radio - Indicates whether the
	MAC Address:	00-1D-0F-E2-E9-1E		eveness radio leakes of the system is evalued or deaked
	PASSAR:	102100.2.0		 Operating Mode - Displant the developing mode of AP if where at radio is analysis.
				SSID - BID of the autom
	Traffic Statistic	*		Heasts MAC - Mar address of Armote
		Received	Seat	· Charact The Local Division in white
Trate	-			Planat

Gambar LII.2 Setup Network Access Point

Device name diisikan tetra dan configuration setup berupa IP address 192.168.2.8, subnetmask 255.255.255.0, default gateway 192.168.2.1 dengan pengalamatan static

2. Channel Frekuensi dan SSID (Service Set Identifier) yang digunakan

Standar yang dipakai adalah 802.11g dan b memiliki tiga channel *non-overlapping*, yaitu channel 11. Sedangkan SSID yang akan digunakan adalah Rangga terlihat pada gambar LII.3 :



Gambar LII.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 WLAN pada perusahaan ini.

G	Dawh the	•• @ @ · 🍇 🖻 · 🖵 🛍	1	
-201-11 10 MIL-10182-168-2 AF				🗶 🛄 👄 🛛 1010
TP-LINK	54M Wireles	Access Reint with eXte	nded Range	
54M Wireless Access Point Moder Na: TL WAXXXX TL WAXXXX	10y4		Disabled a	Wireless Security Settings Help
Status Busic Settings Bolances Bolances Bolances Bolances Security Settings Society Settings MAC (Humm) MAC (Humm) Subjects Status(Set	Version: Eacryption: Radius Server IP: Radius Port: Radius Portword.	Automatic M Automatic M 1812 (1-46525, 0 stands for default	or 1812)	You san senior one of the following security optime: • Disable Secondy - The womens security fondors can be enabled or disatted if classed, the veneral students with encroption. It is recommendent theory that you choose and thinking options to enable security.
- DACP - Winstein Advanced Settings - System Teals	WPA-PSK-WPA2-P Version Encryption	K Autometic M Autometic M		WEP - Detect 00211 WEP security WPA-PSK - Detect WPA based on pre- shared paceprinese WPA - Select WPA based on Radus Server.
	Reboot	(The Pacophrase is between 8 and 63 ch	ararters tong	Each security relian has its over selfings as described follows, WEP Type - You can select one of billowing fight.
		Seve		Antomatic - Select Shared Key or Open Systems automication byte automatically

Gambar LII.4 Setting Security Protokol WPA

Pemakaian keamanan jaringan yang digunakan pada gambar LII.4 adalah teknik WPA dengan *password* 12345678. 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 support 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 LII.5 Mac Address Filtering

Dengan adanya *mac address filtering* yang terlihat pada gambar LII.5 maka hanya perangkat yang dikenal oleh *access point* saja yang dapat terhubung ke jaringan. Sehingga *terminal client* yang dapat mendeteksi adanya pancaran sinyal access point belum tentu dapat terhubung dengan jaringan, kecuali identitas perangkat keras (*physical address*) nya sudah diidentifikasi oleh *access point*.

LAMPIRAN IV

Instalisasi Modem

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

🔊 http://192.168.1	J						e 🖸 🐱
Status	Status	Wizard	LAN	WAN	Advance	Admin	Disguestie
	[Dysten LAN S	RA Statistic AR	F Table				
	System		The second				
	Alias Nas Software	Version	139	101-1(ALGL-3A 200		-	
	Alias Nar Seffware DSP Ver	ne Version sion	139	101-1(ALSL-SA 200)			
	Aliar Nar Software DSP Ven OSL DSL mod	ne Version sion b	139 2810 T141101 ADE2+	Des ADEL2 ADEL2+	,		
	Allas Nar Software DSP Ver DSL mod DSL Star Upstream	ne Versian sian le le s Speed	139 1810 T140301 AD012+; 252 Mps	Des ADEL2 ADEL2+ EHOWTIME LO Geledeave)			
	Allias Nar Software DSP Ver DSL mod DSL Stat Upstream December	ne Versian sian b tas s Speed ram Speed	139 2810 T14300 AD02*, 252Mps 1024Mps	Des ADEL2 ADEL2+ Des ADEL2 ADEL2+ DECOVITIME L0 (Intedeeve) (Intedeeve)			
	Allias Nar Software DSP Ver DSL mod DSL mod Uptoreas Downstre Upstream	ne Versien sien b two speed rum Speed s SNR	139 139 110 T1 410 01 AD0L24, 253 Mps 1024 Mps 1024 Mps	Des ADELD ADELD+ EHOWTENE LO (Estede eve) (Estede eve)			
	Allan Na Seffware DSP Verr DSL DSL mod DSL Stat Upatream Deenastre Deenastre	ne Versien sien s speed ram Speed s SVR ram SNR	139 139 2810 714305 AD624 1024 kbps 1024 kbps 1024 kbps 1024 kbps 1024 kbps 1024 kbps	Internet of the second se	,		
	Allas Na Software DSP Verr DSL DSL mod DSL Stat Upt0 van Downare Upera ter Downare Downare Poware Po	ne Version xion b to s Speed ram Speed s SNR ram SNR tion Counts	139 139 2110 714305 AD624 1034 Mps 1004	TOT-IL/ADIL-3A 500 944 ADIL-3 AD0L3+ 040WTIMEL0 (Intelseve) (Intelseve)	,		
	Allas Na Saffware DSP Ver DSL mod DSL mod DSL mod DSL mod DSL mod DSL mod Upstream Devenative Upstream Personer Upstream	ne Version ton to s Speed ram Speed s SNR ram SNR ram SNR	139 139 2110 AD0124, 233 Mgs 1034 Mgs 1034 Mgs 37 140 6 35 min	TOT-ILACEL-SA 200 Des ADELJ ADELJ+ EHOWTIMELD (Intelseve) (Intelseve)			

Gambar LIII.1 Mac Address Filtering