MODUL

PRAKTIK MIKROTIK ROUTER BOARD

UNTUK LATIHAN UKK

JURUSAN TEKNIK KOMPUTER DAN JARINGAN



Disusun Oleh :

PARDIYANTA

MODUL PRAKTIK MIKROTIK ROUTER BOARD UNTUK MENGHADAPI UKK

Alat dan Bahan

- 1. PC 1 buah
- 2. Laptop 1 buah
- 3. Kabel straight 2 buah
- 4. Dvd Master Windows 7/8
- 5. Tang Krimping dan LAN Tester
- 6. Alat Tulis

CARA INSTALASI DAN SETTING MIKROTIK

Dalam dunia wifi nama Mikrotik sangat tersohor baik sebagai Operating System (OS) router maupun penyedia peralatan wifi, meski untuk OS komplit yang mencakup Proxy, bandwidth management, firewall, hotspot, VPN dll kita harus mengeluarkan biaya untuk lisensinya, namun kalau kita gunakan hanya sebagai router saja, Sistem operasi dari Latvia ini bisa digunakan tanpa adanya batasan waktu, kita bisa mendownloadnya secara cuma-cuma di www.mikrotik.co.id, namun kalau semua fungsi diatas selain router kita hanya di diberi batasan satu hari saja untuk penggunaannya. Jadi dengan komputer yang cukup minim speknya misal Pentium I , hard disk 1-2 GB, memory 64 MB, tanpa mouse, keyboard ataupun monitor, kalau Mikrotik sudah jalan, kita hanya butuh mose, keyboard dan monitor sewaktu instalasi saja. jadi kita sudah bisa membuat router dengan dana minim, daripada kita membeli peralatan router yang bisa jutaan rupiah mahalnya. Mari kita mulai melakukan instalasi, sebelumnya kita sudah memiliki file imagenya Mikrotik yang didownload dari situsnya www.mikrotik.co.id, lalu kita burn ke cd blank.

SETTING MIKROTIK DENGAN WINBOX

Di tampilan **Winbox**, pada kolom **Connect** To masukkan no IP tadi (**192.168.1.1**) dengan Login : **admin** password : **kosong**. Kemudian klik tombol Connect

Password: Save ☑ Keep Password Bemove ☑ Secure Mode Bemove Note: MikroTik ✓ User Note Address ▲ User Note MikroTik	Connect To: 🔎 Login: a		Connect	
Image: Secure Mode Bemove Note: MikroTik Iools Address ▲ User Note Address ▲ User Note	Password:		nd	<u>S</u> ave
<u>N</u> ote: MikroTik <u>I</u> ools Address ▲ User Note admin MikroTik		Secure Mode		<u>R</u> emove
Address 🔺 User Note admin MikroTik	<u>N</u> ote: M	<u>I</u> ools		
admin MikroTik	Address 🔺	User	Note	
	Conn	ection Info		

LANGKAH KONFIGURASI

1. Buka Winbox dan mulailah setting router : IP \rightarrow Address

🔘 adm	in@4C:5E:0C:C3:7	LDB (MikroTik) - WinBox v6.18 on R89510i-2HnD (mipsbe)
Session	s Settings Da	iboard
5	Safe Mode	Season (#C.5E.0C.C378DB
1	Quick Set	
1	Interfaces	
î	Wireless	
22	Bridge	
C	PPP	
	Switch	
°Ľ	Mesh	APP
<u>252</u>	IP N	Accounting
Q	MPLS N	Addresses
2	Routing 🗈 🗈	Coul
-	System 🗈	UNC/ Cent
9	Queues	
	Files	
	Log	
*	Radius	hreval
×	Tools 🗈	Hotopot
	New Terminal	
	MetaROUTER	Negloos
	Partition	radung Dad
	Make Supout if	
•	Manual	
	New WinBox	
<u>i</u>	Bait	Sinter
2		Settings
1		Soda
S		TTP
<u>t</u>		Trafic Row
СЦ,		UPhP
ŭ.		Web Proxy
1	Ø	🔄 🖸 🤪 😢 💌 🖬 😰 🕅 🧿 🚫 🏹 🛛 🕬 - 3 ha Gr 🕁 - 3 ha Gr 🖂 - 3 ha Gr 🖓 - 3 ha Gr S h

2. Buat IP baru untuk eth1 dan eth 2, sekaligus untuk WLAN : klik tanda + (Plus) → dan sesuaikan interface untuk masing-masing IP address → Apply → OK

0	admin@4C:5E:0C:C3:78:DB (MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)									
Se	essions Settings	Dashboard								
	Safe Mode	e Session: 4C:5E:0C:C3:78:DI	В	🔳 🛅						
	🎽 Quick Set									
	Interfaces									
	Wireless									
	📲 🖁 Bridge									
	📑 PPP									
	🛫 Switch		🛉 🖃 🖉 🛐 🛛 Find							
	°t <mark>8</mark> Mesh		Address A Network Interface							
	255 IP	1								
	MPLS	1	Address <192.168.100.1/24>							
	🐹 Routing	1	Address: 192.168.100.1/24 OK							
	System	1	Network: 192.168.100.0							
	🙅 Queues		Interface: ether?							
	Files									
	Eog		Disable							
	🥵 Radius		Comment							
$ $ \times	🄀 Tools	▶	Conv							
n de	New Terminal									
	E MetaROUTER		2 items							
	le Partition		enabled							
Ç	📑 Make Supout.ri	f								
D	😧 Manual									
Т	New WinBox									

3. Mengatur DNS : IP \rightarrow DNS

🕥 admin@4C:5E:0C:C3:78:D8 (MikroTik) - WinBox v6.18 on R8951Ui-2HnD (mipsbe)					
Sessions Settings Da	shboard				
Safe Mode	Session: 4C:5E:0C:C3:78:0	B		= 🙃 📘	
📕 🎽 Quick Set					
Min Interfaces	ARP				
① Wireless	Accounting				
St. Bridge	Addresses				
PPP	Cloud				
- Switch	DHCP Client				
°T ^e Mesh	DHCP Relay				
	DHCP Server				
	DNS				
	Firewall				
	Hotspot				
System 1	IPsec				
	Neighbors				
Files	Packing				
	Pool				
Radius	Routes				
	SMB				
New Terminal	SNMP				
MetaROUTER	Services				
Partition	Settings				
Make Supout.rif	Socks				
Manual	TETP				
🗧 🕒 New WinBox	Traffic Flow				

4. Isikan DNS dan centang pada bagian "Allow Remote Requests" \rightarrow Apply \rightarrow OK



5. Mengatur DHCP : IP \rightarrow DHCP



6. Atur Interface DHCP, arahkanke eth 2 \rightarrow Next (seterusnya)

🕲 admin@4C:5E:0C:C3:78:DB (MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)								
Sessions Settings Dashboard								
Safe Mode	Session: 4C:5E:0C:C3:78:DB							
🖌 Quick Set								
Interfaces								
🕵 Wireless								
📲 🖁 Bridge	DHCP Server							
📑 PPP	DHCP Networks Leases Options Option Sets Alerts							
🛫 Switch								
°t <mark>8</mark> Mesh								
IP N	Name / Interface Relay Lease Time Address Pool Add AR							
🖉 MPLS 🗈 🗅	DHCP Setup							
🔀 Routing 🛛 🗅	Select interface to run DHCP server on							
∰ System ト	DHCP Server Interface: ether1 ▼							
Queues	ether1							
Files	Back ether3							
Eog	ether4 ether5							
🥵 Radius	wlan1							
🗙 🎇 Tools 🛛 🗅								
📸 🔚 New Terminal								
E MetaROUTER								
n 🛃 🛃 Partition								
🏹 🗋 Make Supout.rif								
👩 😯 Manual								
🗧 🍥 New WinBox								

7. Mengatur Route : IP \rightarrow Routes



8. Sesuaikan gateway dengan IP server \rightarrow Apply \rightarrow OK

🛇 admin@4C:5E:0C:C3:78:DB (MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)										
Sessions Settings Da	Sessions Settings Dashboard									
Safe Mode	Session: 4C:5E:0	C:C3:78:DB	🔳 🙃							
🔏 Quick Set										
Interfaces										
Wireless										
📲 🎇 🖁 Bridge	New Route									
e PPP	General Attribute	s								
🕎 Switch	Dst. Address:	0.0.0/0								
°t¦8 Mesh	Gateway:	192.168.2.254 ₹	+							
IP N										
🧷 MPLS 🗈 🗠	Check Gateway:		~							
🔀 Routing 🗈	Type:	unicast	▼							
tig≱ System ト	Distance									
Queues	Distance.	00								
Files	Scope:	30								
Eog	Target Scope:	10								
🥵 Radius	Routing Mark:		•							
Tools	Pref. Source:		~							
New Terminal										
MetaROUTER										
o Partition										
Make Supout.rif										
Manual	enabled		acuve							
New WinBox										

9. Mengatur Firewall : IP \rightarrow Firewall

Sadmin@4C:5E:0C:C3:	🛇 admin@4C:5E:0C:C3:78:DB (MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)						
Sessions Settings Da	ishboard						
い CM Safe Mode	Session: 4C:5E:0C:C3:78:	DB	— 🙃				
Auick Set 🌋	400						
Interfaces	ARP						
 Wireless 	Accounting						
Bridge	Addresses						
C PPP	Cloud						
🕎 Switch	DHCP Client						
°t [®] Mesh	DHCP Relay						
I I I I I I I I I I I I I I I I I I I	DHCP Server						
22 MPLS D	DNS						
Bouting N	Firewall						
ilia System	Hotspot						
	IPsec						
Files	Neighbors						
	Packing						
Cog	Pool						
	Routes						
	SMB						
	SNMP						
	Services						
	Settings						
Make Supout.nf	Socks						
	TETP						
New WinBox	Traffic Flow						

10. Masuk di menu NAT \rightarrow kliktanda plus \rightarrow chain : srcnat, out. Interface : ether 1 \rightarrow action : masquerade \rightarrow Apply \rightarrow OK

🕲 admin@4C:5E:0C:C3:78:DB (MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)											
Sessions Settings Dashboard											
Safe Mode	Session: 4C:5E:0C:C3:78	ssion: 4C:5E:0C:C3:78:DB									
🖌 🎢 Quick Set											
Interfaces		General Advanced	Extra Action	. ок							
🔔 Wireless		Chain: srcr	nat	Cancel							
Bridge	Firewall	Src. Address:		 Apply 							
PPP	Filter Rules NAT Mai	Dst. Address:		•							
Switch	+- **			Disable	nd all Ŧ						
°t% Mesh	# Action Chai	Protocol:		Comment	Inter Out. Int B ▼						
IP r		Src. Port:	Сору								
MPLS P		Det Port:	,	Remove							
🔀 Routing				React Counter							
∰ System ►		Any. Port:		Reset Counter	s						
Queues		In. Interface:	•	Reset All Count	ers						
Files		Out. Interface: 🔲	ether1 🗧	•							
📄 Log											
🧟 Radius		Packet Mark:		•							
🗙 🎇 Tools 🛛 🗅		Connection Mark:		•							
📸 🛅 New Terminal		Routing Mark:		-							
MetaROUTER	•	Bouting Table:	,	-	•						
Partition	Uitems	. Journy Tublo.									
👸 🗋 Make Supout.rif		Connection Type:		•							
🖸 😲 Manual											
B Sew WinBox											



11. Mengatur Hotspot : IP \rightarrow Hotspot

Sadmin@4C:5E:0C:C3:	78:DB (MikroTik) - WinBox	v6.18 on RB951Ui-2HnD (mipsbe)	
Sessions Settings Da	shboard		
Safe Mode	Session: 4C:5E:0C:C3:78:	DB	a
🙀 Quick Set	ARP		
Jam Interfaces	Accounting		
Wireless	Addeesee		
😹 🕌 Bridge	Addresses		
📑 PPP	Cloud		
🛫 Switch	DHCP Client		
°t8 Mesh	DHCP Relay		
ESS IP N	DHCP Server		
@ MPLS 1	DNS		
	Firewall		
All Surtem	Hotspot		
Chience	IPsec		
	Neighbors		
- Files	Packing		
	Pool		
A Radius	Routes		
	SMB		
new Terminal	SNMP		
MetaROUTER	Services		
Partition	Settings		
Make Supout rif	Seelse		
🖸 😨 Manual	TETR		
New WinBox			
	Traffic How		

12. Aktifkan WLAN : Wireless \rightarrow klik dan centang pada bagian WLAN1 \rightarrow klik dua kali \rightarrow tab wireless \rightarrow mode : ap bridge \rightarrow SSID : (isi nama) \rightarrow Apply \rightarrow OK

0	💊 admin@4C:5E:0C:C3:78:DB (MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)												
Se	Sessions Settings Dashboard												
E)	Safe Mode	Session: 4C:5E:	0C:C3:78:E)B									= 🔒
	Auick Set												
	Interfaces												
	🗊 Wireless		Interface <wlan1></wlan1>										
	퉕촕 Bridge	Wireless Tables	General	Wireless	HT	WDS	Nstreme	NV2	Status	Traffic			ОК
	📑 PPP	Interfaces Nst		Mo	de:	ap bridge	;				₹		Cancel
	🕎 Switch			Ba	nd:	2GHz-B					Ŧ		Cance
	°t <mark>8</mark> Mesh		0	hannel Wid	th:	20MHz						L	Apply
	255 IP 🗅	Name	C C		.u.i.	2412						Disable	
	🖉 MPLS 🛛 🗅			Frequen	cy:					Comment			
	😹 Routing 💦 🗅			SS	ID:								
	🎲 System ⊢			Scan L	ist:	default					∓ ≑		Advanced Mode
	Queues		Wire	eless Protoc	col:	any					₹		Torch
	Files		s	ecurity Prof	ile:	default					∓		Scan
	📄 Log			Bridge Mo	de:	enabled					Ŧ		Freq. Usage
	🧟 Radius			-									Alian
×	🔀 Tools 🗈		Defau	lt AP Tx Ra	te:						▼ bps		7 lign
Å	🛅 New Terminal		Default (lient Tx Ra	te:						▼ bps		Snift
Viin	🛃 MetaROUTER	•											Snooper
2	🖖 Partition	I item out of 6 (1				Defau	It Authentic	ate				R	eset Configuration
Ŏ] Make Supout.rif					Uefau	IT Forward						
đ	😧 Manual						5510						
	New WinBox												

13. Menbuat Hotspot : IP \rightarrow Hotspot \rightarrow server : Hotspot stup (arahkanke WLAN 1) \rightarrow Next (seterusnya)

💊 admin@4C:5E:0C:C3:78:DB (MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)								
Sessions Settings Dashboard								
い CM Safe Mode	Session: 4C:5E:0C:C3:78:DB							
Auick Set								
🔚 Interfaces								
🗊 Wireless								
📲 🖁 Bridge	Hotspot							
🚅 PPP	Servers Server Profiles Users User Profiles Active Hosts IP Bindings Service Ports Walled Garden							
🕎 Switch	Here Carl Strate Beset HTML Hotspot Setup							
°t¦8 Mesh								
9 IP ト	Hatanet Sature							
🖉 MPLS 🗈 🗅								
🔀 Routing 🗈								
💮 System 🗅	HotSpot Interface: <u>w/an1</u> , ₹							
Queues								
Files	Back Next Cancel							
Eog								
🥵 Radius								
🔀 🎇 Tools 🛛 🗅								
🔏 🔚 New Terminal								
🚝 🔜 MetaROUTER								
Partition	0 items							
Make Supout.rif								
👩 😯 Manual								
New WinBox								

14. Tab users \rightarrow server : all, Name dan Password : (sesuaikan) \rightarrow Apply \rightarrow OK

Sadmin@4C:5E:0C:C3	78:DB (MikroTik) - WinBox v6.18	on RB951Ui-2HnD (mipsbe)					
Sessions Settings D	ashboard						
ら CM Safe Mode	Safe Mode Session: 4C:5E:0C:C3:78:DB						
🔏 Quick Set							
Interfaces							
🗊 Wireless							
📲 🖁 Bridge	Hotspot						
📑 PPP	Server Profiles Users User Prof						
🛫 Switch		Hotspot User <admin></admin>					
°t¦8 Mesh		General Limits Statistics	ОК	Find			
<u>255</u> IP ∖	Rall admin	Server: all F	Cancel	0:00:00			
🛷 MPLS 🛛 🗅		Name: admin	Apply				
😹 Routing 🗈 🗎	-	Password:					
😳 System 🗅			Disable				
Queues	_	Address.	Comment				
Files		MAC Address:	Сору				
Eog	-	Profile: default 🗧	Remove				
🧟 Radius		Routes:	Beset Counters				
🗙 🄀 Tools 🔹 🗅	-	Email: 📃 🔻					
🞽 🖭 New Terminal	-		Reset All Counters				
MetaROUTER	1 tom (1 colocted)						
Partition	(I selected)						
Make Supout.rif							
🔮 😧 Manual							
New WinBox							

15. Tab user profiles \rightarrow Address pool : hs-pool-6, shared users : (sesuaikan kebutuhan)

📎 admin@4C:5E:0C:C3:78:DB (MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)											
Sessions Settings Dashboard											
▷ ○ Safe Mode Session: 4C:5E:0C:C3:78:DB ■											
🔏 Quick Set			Hotspot User Profile <defa< th=""><th>ault></th><th></th><th></th></defa<>	ault>							
Interfaces			General Queue Adve	ertise Scripts	ок						
Wireless			Name:	default	Cancel						
Bridge		Hotspot	Address Pool:	hs-pool-6	Apply						
📑 PPP		Users User Profiles				n IP List					
🛫 Switch			Session Timeout:		Сору	Find					
°t¦8 Mesh			Idle Timeout:	none ∓ 🔺	Remove	Find					
Ess IP	1	* 🚱 default	Keepalive Timeout	00:02:00							
MPLS	1		Orter Astronom	00.01.00	1						
🔀 Routing	1		Status Autorerresh:	00:01:00	_						
System	1		Shared Users:	9							
Queues			Rate Limit (nx/bx)								
Files					-						
📄 Log				Add MAC Cookie							
🥵 Radius			MAC Cookie Timeout:	3d 00:00:00]						
🔀 🄀 Tools	1		Address Lists		-						
🔏 🖭 New Termi	nal		Address List:	▼							
🚝 🔜 MetaROU1	FER		Incoming Filter:								
Partition		1 item (1 selected)	Outgoing Filter:	.							
👸 🗋 Make Supe	hir.tuc		In a section Developt Medic		-						
👩 😯 Manual			incoming racket Mark:	· · · ·							
🗧 🔘 New WinBe	ox		Outgoing Packet Mark:		_						

16. Mengatur DHCP : DHCP Setup arahkanke WLAN 1 → Next (seterusnya)

Sadmin@4C:5E:0C:C3:7	/8:DB (MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)	
Sessions Settings Da	shboard	
Safe Mode	Session: 4C:5E:0C:C3:78:DB	🔳 🖻
Ruick Set		
Interfaces		
Wireless		
Bridge	DHCP Server	
📑 PPP	DHCP Networks Leases Options Option Sets Alerts	
🛫 Switch		
°t% Mesh		Fina
😳 IP 🗈 🕅	Name / Interface Relay Lease Time Address Pool Add AK dhcp1 ether2 3d 00:00:00 dhcp_pool1 no	
🥔 MPLS 🗈 🗅	DHCP Setup	
🔀 Routing 🗈	Select interface to run DHCP server on	
🞲 System 🗅	DHCP Server Interface: Wan1	
Queues		
Files	Back Next Cancel	
📄 Log		
🔀 🥵 Radius		
🔒 🏏 Tools 🛛 🗅		
E New Terminal		
MetaROUTER		
😸 🤚 Partition		
Make Supout.rif		
🗧 😯 Manual		
New WinBox		

- 17. Masukke web proxy : centang (yang perlu dicentang) → access →klik tanda plus →dst. port : 80, dst. Host : *linux.or.id, action : deny
- 18. Untuk memblokir file berekstensi isikan (*.mp3* dan *.mkv*) pada bagian Path dan kosongkan dst. Host \rightarrow Apply \rightarrow OK

Section 2014 C:5E:0C:C3:78:DB ((MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
Sessions Settings Dashboar	rd
い CM Safe Mode Sessi	ion: 4C:5E:0C:C3:78:DB
🖌 🙀 Quick Set	Web Proxy Settings
Interfaces	General Status Lookups Inserts Refreshes OK
🔔 Wireless	
뛇렳 Bridge	Src. Address: :: ♦
📑 PPP	Port: 8080
🕎 Switch	Clear Cache
°t <mark>°</mark> Mesh	Reset HTML
IP N	Parent Proxy: Access
MPLS N	Parent Proxy Port:
🔀 Routing	Color Alizzation tata@smknglinar.sch.id.l.e.
tiệi System ►	
	Max. Cache Size: [unlimited] + KiB Connections
	Max Cache Object Size: 2048 KiB Cache Contents
	Cache On Disk
	Max. Client Connections: 600
	Max. Server Connections: 600
	Max Fresh Time: 3d 00:00:00
Partition	Serialize Connections
Make Supout.rif	✓ Always From Cache
🔁 😲 Manual	Cache Hit DSCP (TOS): 4
Sew WinBox	
WinBox	
S admin@4C:5E:0C:C3:78:DB ((MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
New WinBox admin@4C:5E:0C:C3:78:DB (Sessions Settings Dashboar	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
Image: Sessions Settings Dashboar Image: Sessions Settings Dashboar Image: Sessions Settings Dashboar Image: Sessions Settings Dashboar	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
Image: Series of the series	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
 New WinBox admin@4C:5E:0C:C3:78:DB (Sessions Settings Dashboar Cal Safe Mode Session Cal Cal Control Control	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
 New WinBox admin@4C:5E:0C:C3:78:DB (Sessions Settings Dashboar C Safe Mode Session C Quick Set Interfaces Wireless 	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
 New WinBox admin@4C:5E:0C:C3:78:DB (Sessions Settings Dashboar C Safe Mode Sessi G Quick Set Interfaces Wireless Bridge 	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
 New WinBox admin@4C:5E:0C:C3:78:DB (Sessions Settings Dashboar Safe Mode Sessions Guick Set Interfaces Wireless Bridge PPP Web 	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
 New WinBox admin@4C:5E:0C:C3:78:DB (Sessions Settings Dashboai C* Safe Mode Sessi Quick Set Interfaces Wireless Bridge PPP Web Switch Mesh 	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
 New WinBox admin@4C:5E:0C:C3:78:DB (Sessions Settings Dashboar ✓ Safe Mode Sessi ✓ Quick Set ✓ Interfaces ✓ Wireless ✓ Bridge ✓ Bridge ✓ Bridge ✓ Bridge ✓ Bridge ✓ PPP ✓ Web ✓ Switch ✓ Mesh ✓ 10 	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
 New WinBox admin@4C:5E:0C:C3:78:DB (Sessions Settings Dashboar ☆ Quick Set @ Interfaces ŵ Wireless ŵ Bridge @ Switch ♥ Switch ♥ Mesh # 0 WPLS 	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
Image: Second secon	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe) rd ion: 4C:5E:0C:C3:78:DB Web Proxy Settings General Status Lookups Insets Refreshes OK Proxy Access Web Proxy Rule <> Image: Stre. Address: Image: Stre. S
Image: Second strain (Second strai	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe)
Image: Second secon	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe) rd ion: 4C:5E:0C:C3:78:DB Web Proxy Settings General Status Lookups Insets Refreshes OK General Status Lookups Insets Refreshes OK Find Cancel Proxy Access Web Proxy Rule <> Cancel Det Det Address: Cancel Det Det Det Address: Cancel Det Det Det Det Det Det Det Det Cancel Det
Image: Second secon	(MikroTik) - WinBox v6.18 on RB951Ui-2HnD (mipsbe) rd ion: 4C:5E:0C:C3:78:DB Web Proxy Settings General Status Lookups Insets Refreshes OK Proxy Access Web Proxy Rule <> Src. Address: ▼ OK Find Src. Address: ▼ OK Find Dst. Address: ▼ OK Find Dst. Port: Bot. Host: Tinux.or.id Copy Method: Wethod:
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19. Mengatur Firewall : NAT → General → Chain : dstnat, protocol : tcp, dst port 80, In. interface: wlan1
20. Action : redirect, to port : 8080

Sessions Settings Das	shboard			
Safe Mode	Session: 4C:5E:0C:C3:78	DB		■ 🛱
🇯 Quick Set		New NAT Rule		
Interfaces		General Advanced Extra Action	ОК	
Wireless		Chain: dstnat	Cancel	
Bridge	Firewall	Src. Address:	Apply	
📑 PPP	Filter Rules NAT Mai			
🕎 Switch		Dst. Address:	Disable	
°t <mark>°</mark> Mesh		Protocol: 6 (tcp)	Comment	
Es IP 🗅 🗅	0 D @ijump dstn;	Sro Port:		r Out. Int Byte 2
🖉 MPLS 🛛 🗅	1 D 🕬 jump hots			2
🔀 Routing 🛛 🗅	2 D ≓ll redir hots 3 D ≓ll redir hots	Dst. Port: [] [80 4	Nemove	
🎲 System ⊨	4 D ≓ll redir hots	Any. Port:	Reset Counters	
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Files	7 D @jump hots	Out. Interface:	-	
📄 Log	8 D ≓ll redir hs-u 9 D ⇒ll redir			
🖌 🧟 Radius	10 D ≓ll redir hs-u	Packet Mark:	-	
🖁 🏏 Tools 🔹 🗅	11 D ≓ll redir hs-u	Connection Mark:	-	
New Terminal	12 D ∞aljump n.s-u 13 D ≓ll redir h s-ai	Bouting Mark	-	
MetaROUTER	•		_	•
Partition	18 items			
Make Supout.rif		Connection Type:	-	
😧 Manual				
🖉 🔘 New WinBox				



21. Uji situs dan download file yang telah diblokir pada laptop dan gunakan hotspot yang telah dibuat tadi

Firefox > ERROR: Forbidden × ERROR: Forbidden	× +			
The second secon	uVfWskmUFwNnP2xQ3aPAgzolz	dvU^Q/93481.mp3?md5=HqX0mfV_aNay2	2m7bv ☆ マ C 🛃 • Google	۹ 🖬 ۲
ERROR: Forbidden				
While trying to retrieve the URL <u>http://m1509.wapka-file.com//g06/music/4</u> ay2m7bwhKQ&expires=1456634749:	2119531/1999396/a9afRW	AMuSADn5dC2WVduVfWskmUFv	wNnP2xQ3aPAgzolzdvU%5E	3Q/93481.mp3?md5=HqX0mfV_aN
Access Denied				
Your cache administrator is tata@smknglipar.	sch.id			
Generated Fri, 02 Jan 1970 11:45:40 GMT by 192.168.200.1 (Mikrotik Http	Proxy)			
😌 🖉 🗒 🍳 🌍 🕲				EN 🔺 🖹 🕅 🚰 📶 🌒 11:46 25/02/2016
Firefox		and the state of the state		
e e www.linux.or.id			😭 ⊽ 🕻 🚼 - Google	۶ 🕈 🖸
ERROR: Forbidden				
Access Denied				
Your cache administrator is tata@smknglipar	sch.id			
Generated Fri 02 Ian 1070 11:44:40 GMT by 102 168 200 1 (Mikrotik Htt	(Prory)			
Generalea 171, 02 Jan 1970 11.44.40 Gial Oy 192.100.200.1 (Jan Kolik Ilig	i rozy)			

CARA SETTING FIREWALL (PEMBATASAN WAKTU AKSES INTERNET)

- 1. Atur jam akses client : (sesuaikan waktu terlebih dulu) → Firewall → Tab Filter Rules → klik tanda plus → General → chain : output, scr address : network dari ipwlan (ipaddress yang akan disetting)
- 2. Extra →atur jam akses dan hari
- 3. Action \rightarrow drop \rightarrow Apply \rightarrow OK

admin@4C:5E:0C:C3:78:DB (MikroTik) - WinBox v6.18 on R8951Ui-2HnD (mipsbe)									
Sessions Settings Da	ashboard								
ら 🖓 Safe Mode	Session: 4C:5E:0C:C3:78	:DB				= 🛱			
A Quick Set		Firewall Rule <192.16	8.200.0/24>		□ ×]			
Interfaces		General Advanced	Extra Action	ΙC	ОК				
🚊 Wireless		Chain:	ou tou t		Cread				
and ge	Firewall				Cancel				
📑 PPP	Filter Rules NAT More	Src. Address:	192.168.200.0/24] 🗕 🛯	Apply				
🛫 Switch		Dst. Address:		┘╸│┌	Disable				
°t¦8 Mesh		Protocol] ↓ [Comment				
😳 IP 🗈 🗎		Cro. Dert.			Conv	iter Out. Int Byte:			
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🔀 Routing 🗈	2 D 22 jump input 3 D X drop input	Dst. Port: [Nemove	14			
t 😳 System ►	4 D 🖓 jump hs-ing	Any. Port:		」 ▼ [Reset Counters	14			
Queues	DU vacc hs-ing 6D vacc hs-ing	P2P:]• [Reset All Counters				
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Log	8 D ≭reject hs-un 9 D ≯reject hs-un	Out. Interface:		•		1			
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New Terminal	12 Vacc outpu	Connection Mark:]•					
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Sessions Settings D	:78:DB (MikroTik) - WinBc ashboard	ох v6.18 on RB951U	i-2HnD (mipsbe)	•					
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admin@4C:5E:0C:C3 Sessions Settings D C Safe Mode Additional Additica Additiona Additional Addit	78:DB (MikroTik) - WinBo ashboard Session: 4C:5E:0C:C3:78 Firewall Rule General Ad	2004/1000000	i-2HnD (mipsbe)						
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4. Saat pembatasan jam akses belum berjalan, tulisan pada filter rules akan berwarna merah, ketika sudah berjalan akan berubah menjadi warna hitam

🔘 a	dmin@4C:5E:0C:C3:7	78:DB (Mik	aroTik) -	WinBox	v6.18 o	n RB951Ui	-2HnD (mips	be)										X
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	© Wireless							0										
	L Wilciess			× 😐	ľ	OU Rese		OO Hese	et All Counte	ns			-		1	Find	al	Ŧ
	ang biluye	#	Action	Chain	Sn	c. Address	Dst. Address	Proto	. Src. Port	Dst. Port	In. Inter	Out. Int	Bytes	Packets				•
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0	admin@4C:5E:0C:C3:7	8:DB (Mik	roTik) - V	WinBox v6.1	8 on RB9510	Ji-2HnD (mip	sbe)					x
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5	Safe Mode Session: 4C:5E:0C:C3:78:DB											
	A Quick Set Firewall											
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	°t¦s Mesh	3 D	🔀 drop	input			6 (tcp)		64872-64			
	255 IP	4 D	م jump	hs-input								165.4
	<u>∓"</u>	5 D	V acc	hs-input			17 (u		64872			12.5
	W MPLS P	70	V acc	ns-input			e (tcb)		648/2-64			9. 20.0
	🎉 Routing 🛛 🗅	8 D	× reject	hs-unauth			6 (tcp)					20.
	🎲 System 🗅	9 D	× reject	hs-unauth			- (20.9
		10 D	× reject	hs-unauth-to								
		;;; place	e hotspot	rules here								
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ou	New WinBox	14 items (1 selected	i)								

5. Kembali uji koneksi pada laptop, masih dengan koneksi hotspot yang dibuat tadi. Jika berhasil maka saat browsing akan seperti ini. Jika pembatasan jam akses sudah selesai, anda kan dapat browsing kembali.