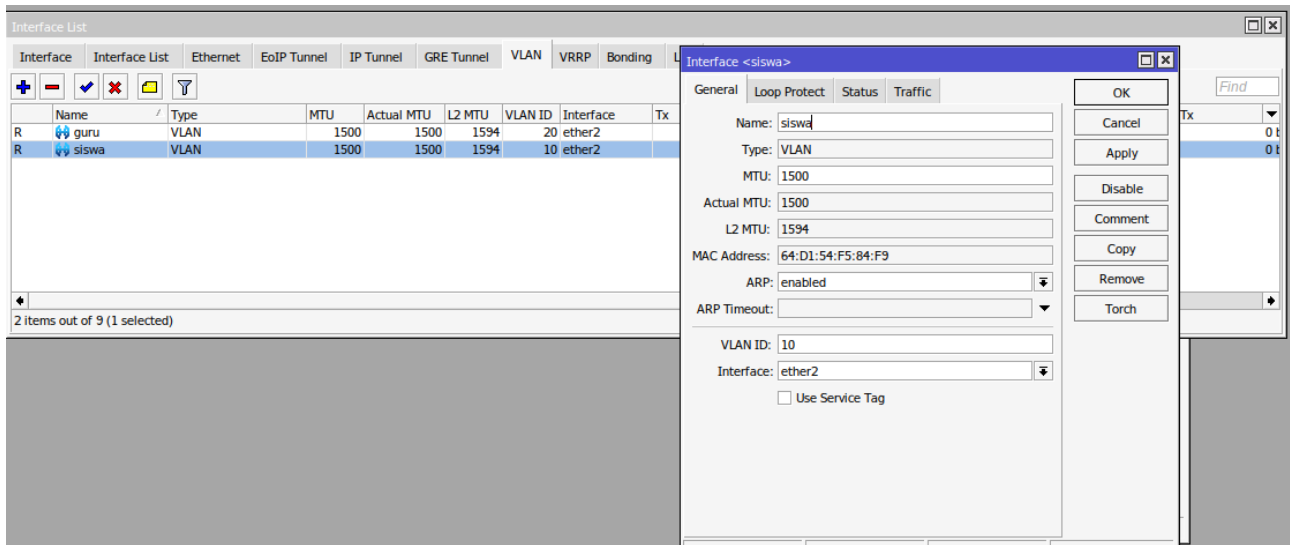


## Konfigurasi VLAN pada Ether2

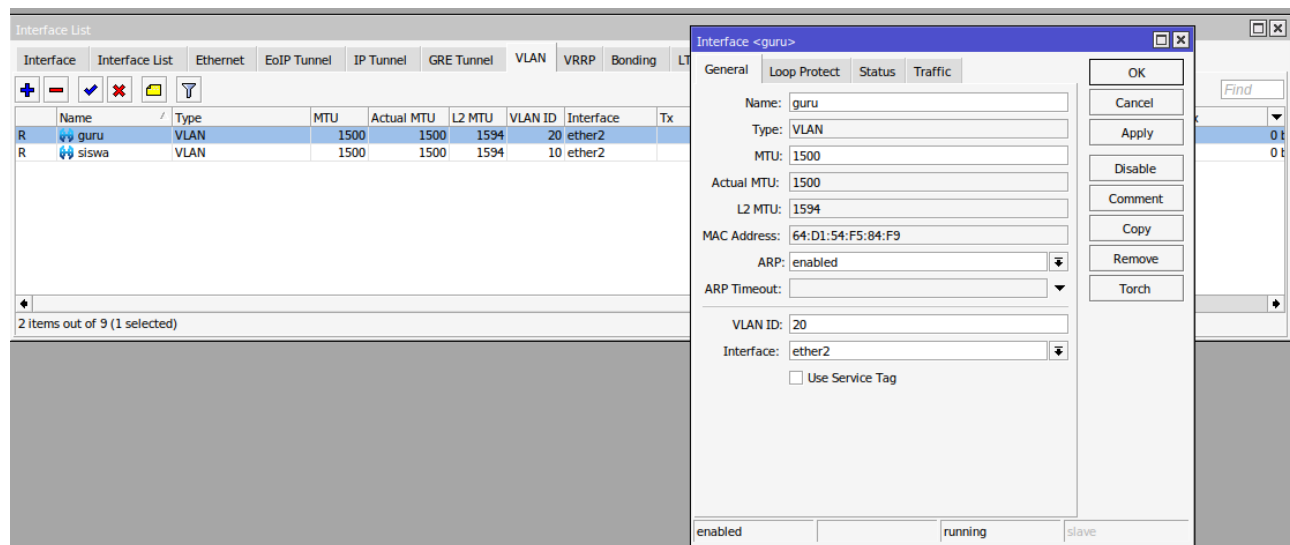
### 1) VLAN 1

- VLAN ID : 10
- Name : siswa



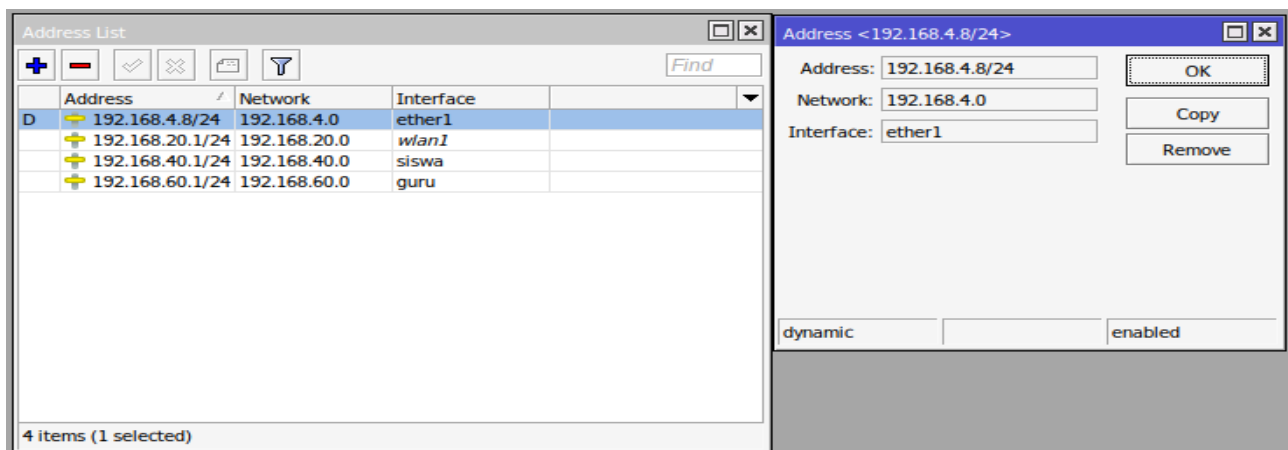
### 2) VLAN 2

- VLAN ID : 20
- Name : guru



## Ether 1:

- IP Ether1 : Sesuai dengan Network yang diberikan ISP



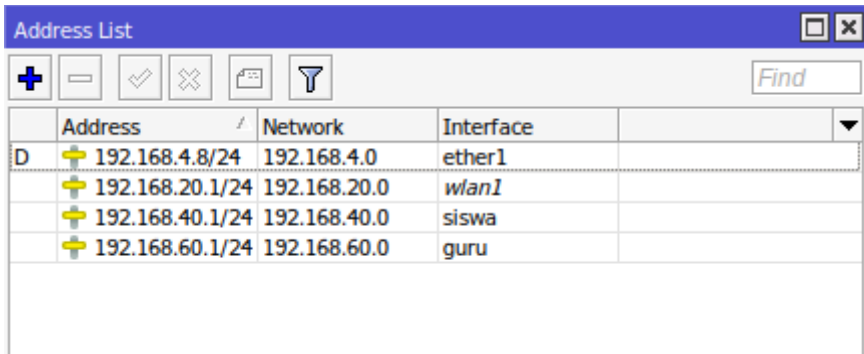
## Konfigurasi Ether 2 digunakan untuk jaringan LAN

### a) VLAN 1

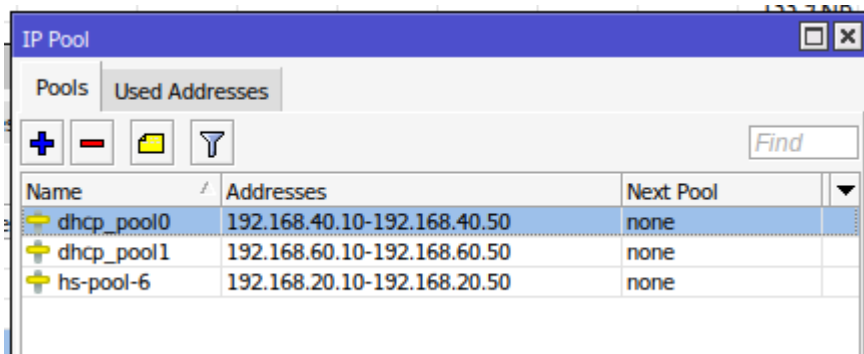
- IP VLAN 1 : 192.168.40.1/24
- DHCP Pool : 192.168.40.10 – 192.168.40.50

### b) VLAN 2

- IP VLAN 2 : 192.168.60.1/24
- DHCP Pool : 192.168.60.10 – 192.168.60.50



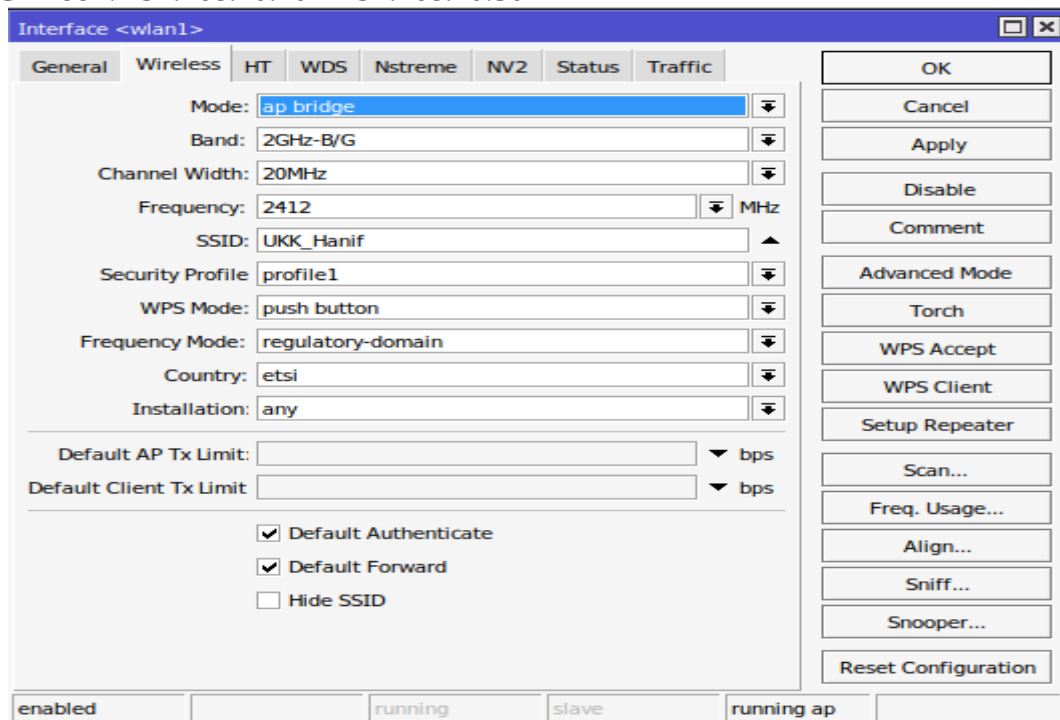
	Address	Network	Interface
D	192.168.4.8/24	192.168.4.0	ether1
	192.168.20.1/24	192.168.20.0	wlan1
	192.168.40.1/24	192.168.40.0	siswa
	192.168.60.1/24	192.168.60.0	guru



Name	Addresses	Next Pool
dhcp_pool0	192.168.40.10-192.168.40.50	none
dhcp_pool1	192.168.60.10-192.168.60.50	none
hs-pool-6	192.168.20.10-192.168.20.50	none

## WLAN

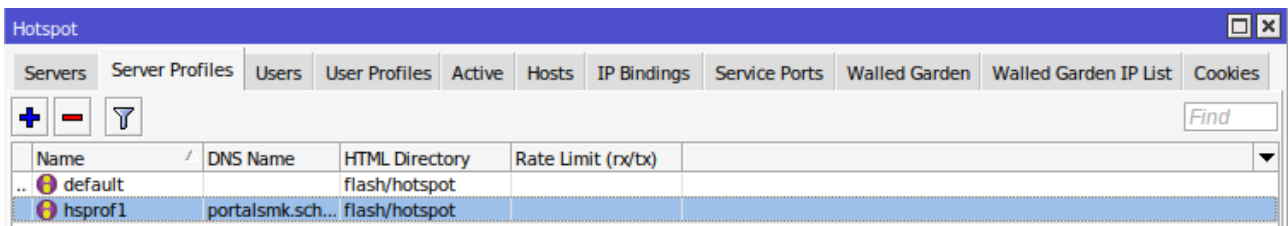
- IP WLAN : 192.168.20.1/24
- SSID : UKK\_Hanif
- Password : 12345678
- DHCP Pool : 192.168.20.10 – 192.168.20.50



General	Wireless	HT	WDS	Nstreme	NV2	Status	Traffic
<b>Mode:</b> ap bridge							
<b>Band:</b> 2GHz-B/G							
<b>Channel Width:</b> 20MHz							
<b>Frequency:</b> 2412 MHz							
<b>SSID:</b> UKK_Hanif							
<b>Security Profile:</b> profile1							
<b>WPS Mode:</b> push button							
<b>Frequency Mode:</b> regulatory-domain							
<b>Country:</b> etsi							
<b>Installation:</b> any							
<b>Default AP Tx Limit:</b> bps							
<b>Default Client Tx Limit:</b> bps							
<input checked="" type="checkbox"/> Default Authenticate							
<input checked="" type="checkbox"/> Default Forward							
<input type="checkbox"/> Hide SSID							
<b>OK</b>							
<b>Cancel</b>							
<b>Apply</b>							
<b>Disable</b>							
<b>Comment</b>							
<b>Advanced Mode</b>							
<b>Torch</b>							
<b>WPS Accept</b>							
<b>WPS Client</b>							
<b>Setup Repeater</b>							
<b>Scan...</b>							
<b>Freq. Usage...</b>							
<b>Align...</b>							
<b>Sniff...</b>							
<b>Snooper...</b>							
<b>Reset Configuration</b>							
<b>enabled</b> <b>running</b> <b>slave</b> <b>running ap</b>							

## Hotspot

alamat login hotspot = portalsmk.sch.id



The screenshot shows the Mikrotik WinBox interface for Hotspot configuration. The 'Servers' tab is active, displaying a table with two entries: 'default' and 'hspof1'. The 'hspof1' entry is selected, showing its DNS Name as 'portalsmk.sch...' and HTML Directory as 'flash/hotspot'.

Name	DNS Name	HTML Directory	Rate Limit (rx/tx)
default		flash/hotspot	
hspof1	portalsmk.sch...	flash/hotspot	

Mengubah tampilan halaman login hotspot sehingga minimal terdapat tampilan tulisan “Selamat Datang di Hotspot PeTIK”

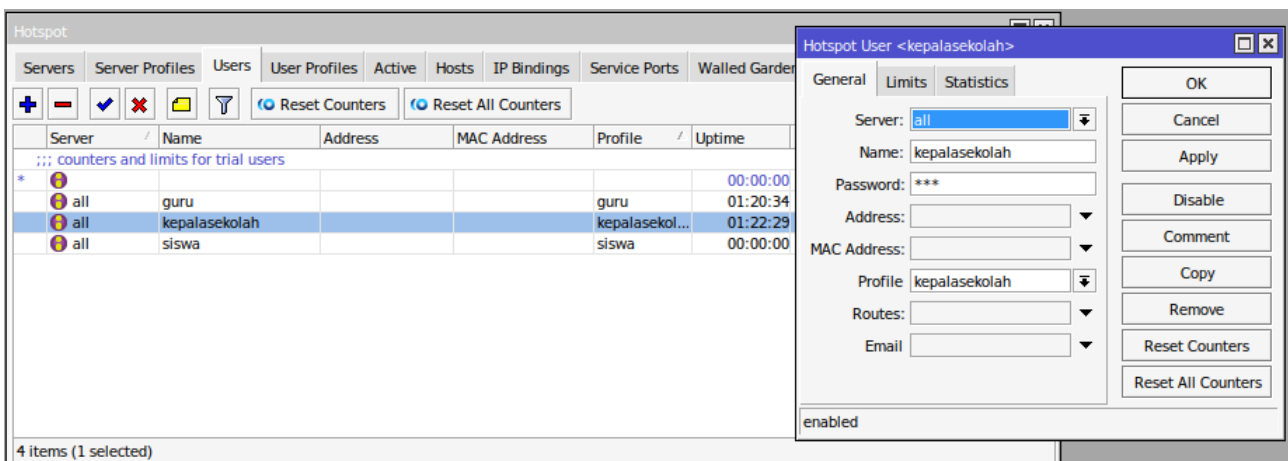


## Membuat 3 user dengan ketentuan seperti berikut

Username : kepalasekolah

password : 123

kecepatan : 512 kbps



The screenshot shows the Mikrotik WinBox interface for Hotspot Users configuration. The 'Users' tab is active, displaying a table with three entries: 'guru', 'kepalasekolah', and 'siswa'. The 'kepalasekolah' entry is selected. A dialog box titled 'Hotspot User <kepalasekolah>' is open, showing the configuration for this user. The dialog box has tabs for 'General', 'Limits', and 'Statistics'. The 'General' tab is active, showing fields for 'Server', 'Name', 'Password', 'Address', 'MAC Address', 'Profile', 'Routes', and 'Email'. The 'Name' field is set to 'kepalasekolah', the 'Password' field is set to '\*\*\*', and the 'Profile' field is set to 'kepalasekolah'.

Server	Name	Address	MAC Address	Profile	Uptime
all	guru			guru	00:00:00
all	kepalasekolah			kepalasekol...	01:22:29
all	siswa			siswa	00:00:00

Hotspot User <kepalasekolah>

General Limits Statistics

Server: all

Name: kepalasekolah

Password: \*\*\*

Address:

MAC Address:

Profile: kepalasekolah

Routes:

Email:

enabled

Hotspot

Servers

Server Profiles

Users

User Profiles

Active

Hosts

IP Bindings

Serv

+ -

Filter

Name	Session Time...	Idle Timeout	Shared U...	Rate Limit (rx/tx)
default		none	1	256k
guru		none	1	512k
kepalasekolah		none	1	128k
siswa		none	1	128k

4 items (1 selected)

Hotspot User Profile <kepalasekolah>

General

Queue

Scripts

Name: kepalasekolah

Address Pool: hs-pool-6

Session Timeout:

Idle Timeout: none

Keepalive Timeout: 00:02:00

Status Autorefresh: 00:01:00

Shared Users: 1

Rate Limit (rx/tx): 512k

☒ Add MAC Cookie

MAC Cookie Timeout: 3d 00:00:00

Address List:

Incoming Filter:

Outgoing Filter:

Incoming Packet Mark:

Outgoing Packet Mark:

Open Status Page: always

☐ Transparent Proxy

OK

Cancel

Apply

Copy

Remove

Username : guru  
password : 456  
kecepatan : 256 kbps

Hotspot

Servers

Server Profiles

Users

User Profiles

Active

Hosts

IP Bindings

Service Ports

Walled Garden

+ -

Filter

Reset Counters

Reset All Counters

Server	Name	Address	MAC Address	Profile	Uptime
::: counters and limits for trial users					
*	all	guru		guru	00:00:00
	all	kepalasekolah		kepalasekol...	01:20:34
	all	siswa		siswa	01:22:29
					00:00:00

4 items (1 selected)

Hotspot User <guru>

General

Limits

Statistics

Server: all

Name: guru

Password: \*\*\*

Address:

MAC Address:

Profile: guru

Routes:

Email:

OK

Cancel

Apply

Disable

Comment

Copy

Remove

Reset Counters

Reset All Counters

Hotspot

Servers

Server Profiles

Users

User Profiles

Active

Hosts

IP Bindings

Serv

+ -

Filter

Name	Session Time...	Idle Timeout	Shared U...	Rate Limit (rx/tx)
default		none	1	256k
guru		none	1	512k
kepalasekolah		none	1	128k
siswa		none	1	128k

4 items (1 selected)

Hotspot User Profile <guru>

General

Queue

Scripts

Name: guru

Address Pool: hs-pool-6

Session Timeout:

Idle Timeout: none

Keepalive Timeout: 00:02:00

Status Autorefresh: 00:01:00

Shared Users: 1

Rate Limit (rx/tx): 256k

☒ Add MAC Cookie

MAC Cookie Timeout: 3d 00:00:00

Address List:

Incoming Filter:

Outgoing Filter:

Incoming Packet Mark:

Outgoing Packet Mark:

Open Status Page: always

☐ Transparent Proxy

OK

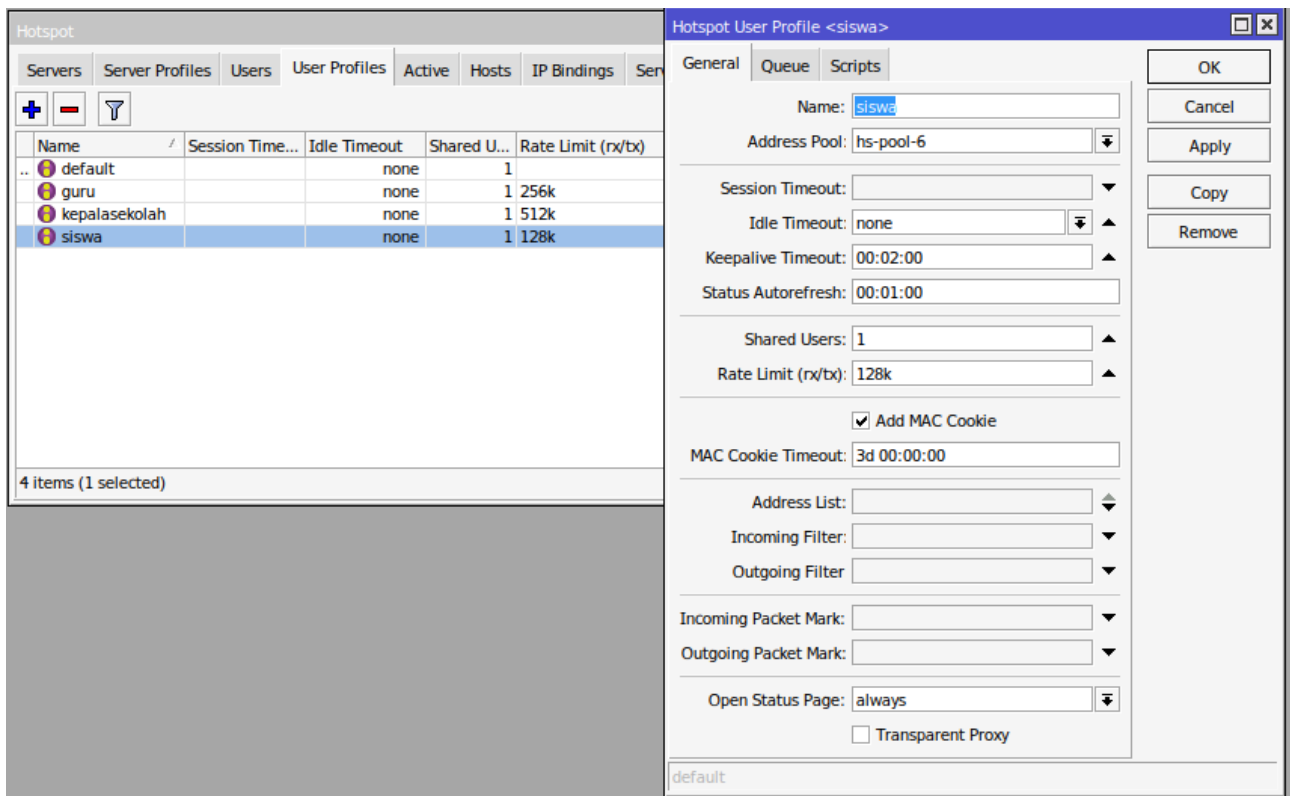
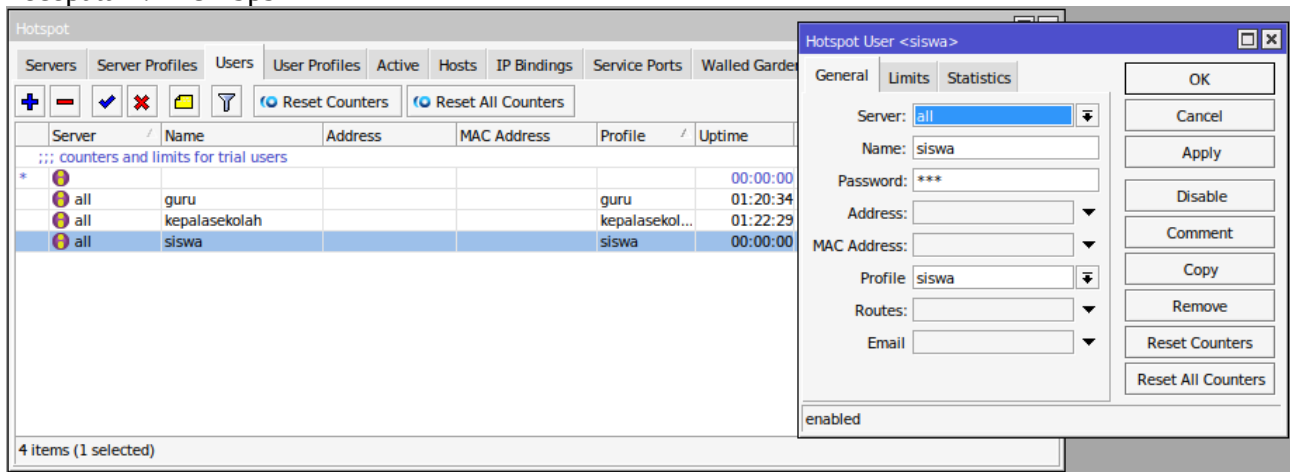
Cancel

Apply

Copy

Remove

Username : siswa  
password : 789  
kecepatan : 128 kbps



### Konfigurasi VLAN pada Routerboard dengan ketentuan seperti berikut

- 1) Port 1 terhubung ke Wifi Routerboard dan difungsikan sebagai port trunk
- 2) Port 2 dan 3 terhubung ke VLAN 1
- 3) Port 4 terhubung ke VLAN 2
- 4) Gunakan mode VLAN secure dan logika "always-strip"

Switch					
Switch	Port	Port Isolation	Host	VLAN	Rule
Name	Switch	VLAN Mode	VLAN Header	Default VLAN ID	
ether1	switch1	secure	add if missing	0	
ether2	switch1	secure	always strip	10	
ether3	switch1	secure	always strip	10	
ether4	switch1	secure	always strip	20	
ether5	switch1	disabled	leave as is	0	
switch1 cpu	switch1	disabled	leave as is	0	

Bridge											
Bridge	Ports	Port Extensions	VLANs	MTIs	Port MST Overrides	Filters	NAT	Hosts	MDb		
Name	Type	L2 MTU	MAC Address	Proto...	Tx	Rx	Tx Packet (p/s)	Rx Packet (p/s)	FP Tx	FP Rx	FP Tx Packet (p/s)
bridge1	Bridge	1536	CC:2D:E0:24:AB:73	RSTP		0 bps	0 bps	0	0	0 bps	0

Switch					
Switch	Port	Port Isolation	Host	VLAN	Rule
Switch	VLAN ID	Ports			
switch1	10	ether1, ether2, ether3			
switch1	20	ether1, ether4			

Bridge											
Bridge	Ports	Port Extensions	VLANs	MTIs	Port MST Overrides	Filters	NAT	Hosts	MDb		
#	Interface	Bridge	Horizon	Trusted	Priority (...)	Path Cost	PVID	Role	Root Pat...		
0 IH	ether1	bridge1		no	80	10	1	disabled port			
1 IH	ether2	bridge1		no	80	10	1	disabled port			
2 IH	ether3	bridge1		no	80	10	1	disabled port			
3 IH	ether4	bridge1		no	80	10	1	disabled port			

## IP VLAN 1

```
petik-13@petik-13:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: enp2s0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether d8:5e:d3:1d:1d:4d brd ff:ff:ff:ff:ff:ff
    inet 192.168.40.50/24 brd 192.168.40.255 scope global dynamic noprefixroute enp2s0
        valid_lft 589sec preferred_lft 589sec
    inet6 fe80::e4b3:5e7c:a7ba:f2a8/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
3: virbr0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default qlen 1000
    link/ether 52:54:00:2c:d3:de brd ff:ff:ff:ff:ff:ff
    inet 192.168.122.1/24 brd 192.168.122.255 scope global virbr0
        valid_lft forever preferred_lft forever
```

## IP VLAN 2

```
petik-13@petik-13:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: enp2s0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether d8:5e:d3:1d:1d:4d brd ff:ff:ff:ff:ff:ff
    inet 192.168.60.50/24 brd 192.168.60.255 scope global dynamic noprefixroute enp2s0
        valid_lft 585sec preferred_lft 585sec
    inet6 fe80::e4b3:5e7c:a7ba:f2a8/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
3: virbr0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default qlen 1000
    link/ether 52:54:00:2c:d3:de brd ff:ff:ff:ff:ff:ff
    inet 192.168.122.1/24 brd 192.168.122.255 scope global virbr0
        valid_lft forever preferred_lft forever
```

