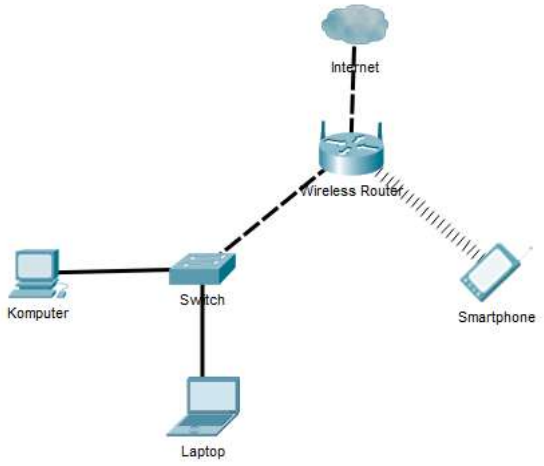
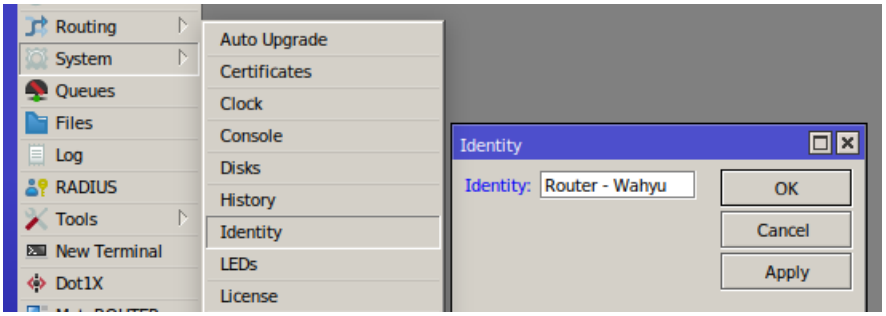
DOKUMENTASI JAWABAN OBSERVASI (PRAKTEK)

Nama : Wahyu Ahmad Yassin
Skema : Junior Network Administrator

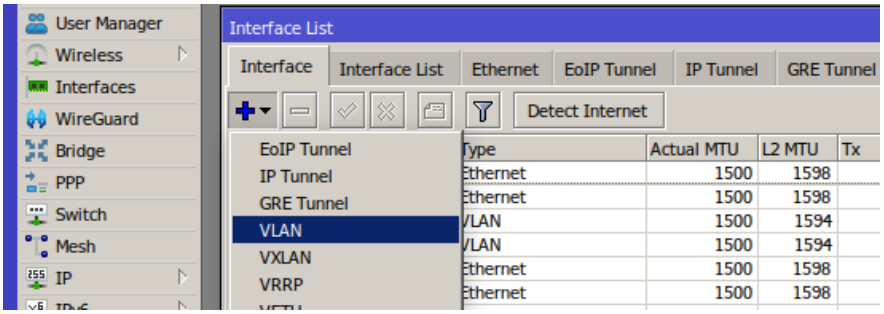


gambar topologi jaringan.

1. **system -> identity -> Router - Wahyu**

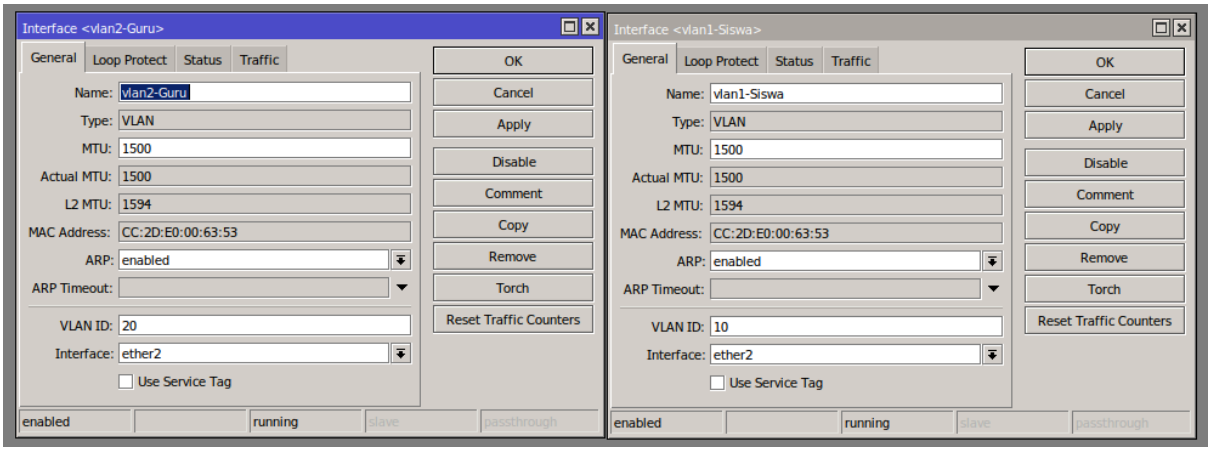


2. **KONFIGURASI INTERFACE VLAN PADA ROUTER**

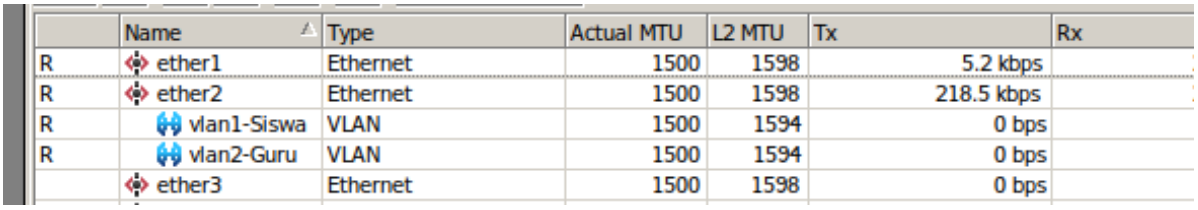


Interfaces -> VLAN -> add VLAN (+)

- Name : **VLAN 1 - Siswa**
- VLAN ID : 10
- Interfaces : ether2
- Name : **VLAN 2 - Guru**
- VLAN ID : 20
- Interfaces : ether2



Sekarang kita punya 2 interface baru yang tadi kita buat.



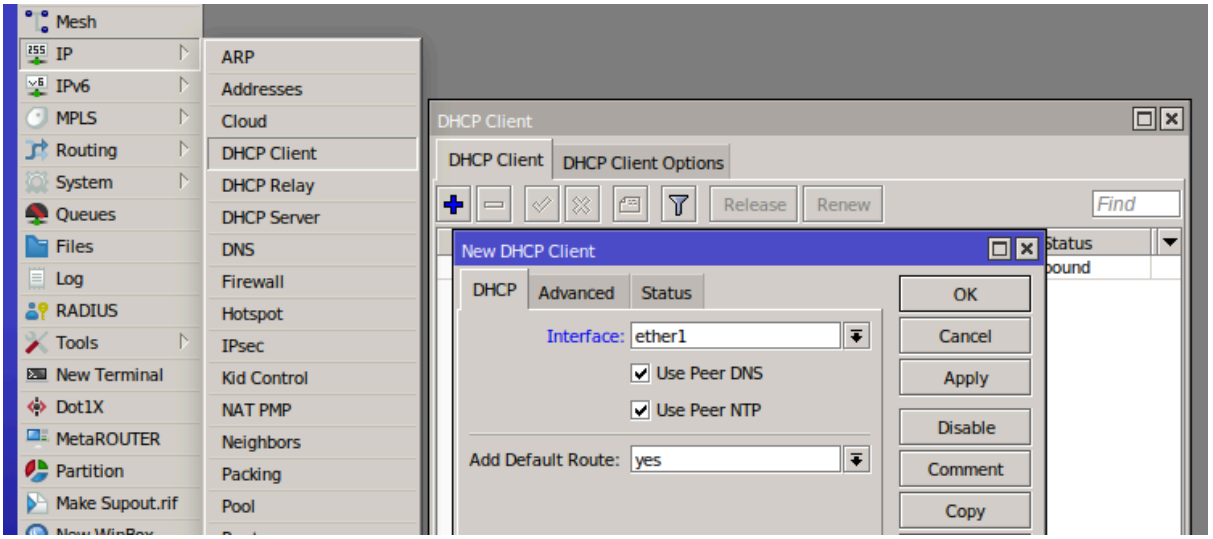
	Name	Type	Actual MTU	L2 MTU	Tx	Rx
R	ether1	Ethernet	1500	1598	5.2 kbps	
R	ether2	Ethernet	1500	1598	218.5 kbps	
R	vlan1-Siswa	VLAN	1500	1594	0 bps	
R	vlan2-Guru	VLAN	1500	1594	0 bps	
	ether3	Ethernet	1500	1598	0 bps	

3. KONFIGURASI IP ADDRESS PADA ROUTER

Setelah membuat interface VLAN, sekarang kita konfigurasi IP untuk interface ether1, wlan1, vlan1-siswa, vlan2-guru berdasarkan ketentuan pada soal.

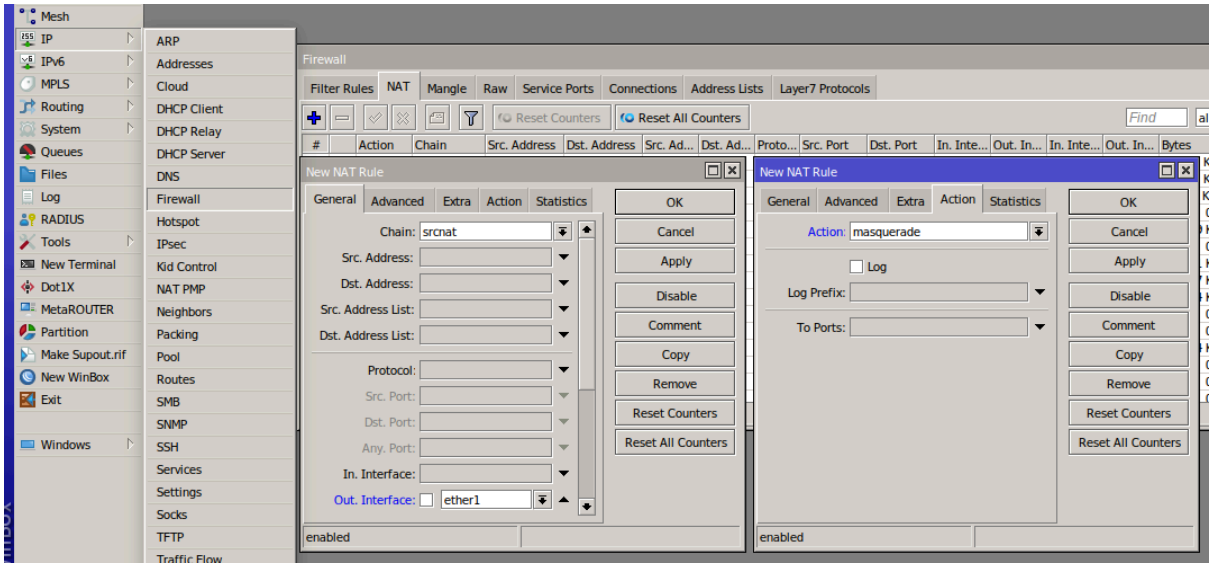
IP -> DHCP Client -> Add (+)

Kita mulai dengan request dhcp client untuk ether1. Buka menu IP > DHCP Client. Tambah baru dengan klik icon "+". Pilih interfacenya **ether1.**



IP -> Firewall -> Tab NAT -> Add (+) -> General

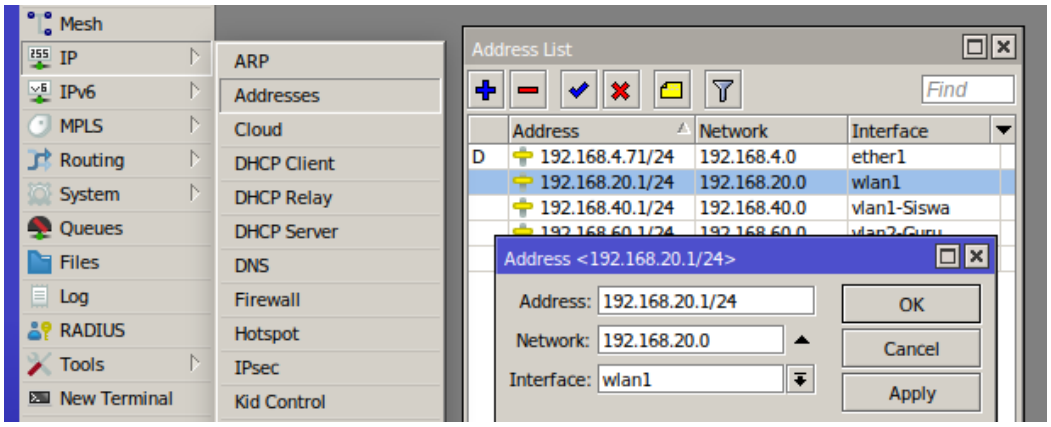
- Chain : srcnat
- Out Interface : ether1
- Action : Masquerade



IP -> Addresses -> Add (+)

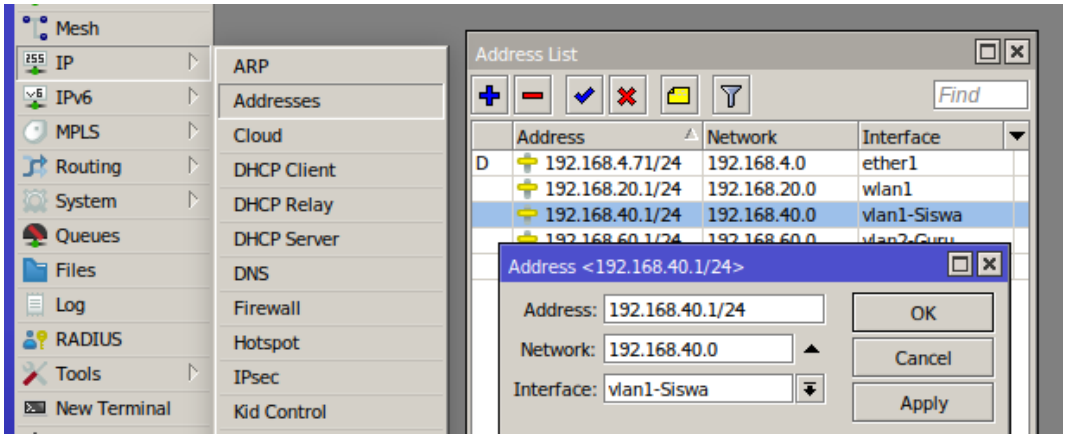
WLAN 1

- **Address : 192.168.20.1/24**
- **Network : otomatis setelah apply / OK (192.168.20.0)**
- **Interface : wlan1**



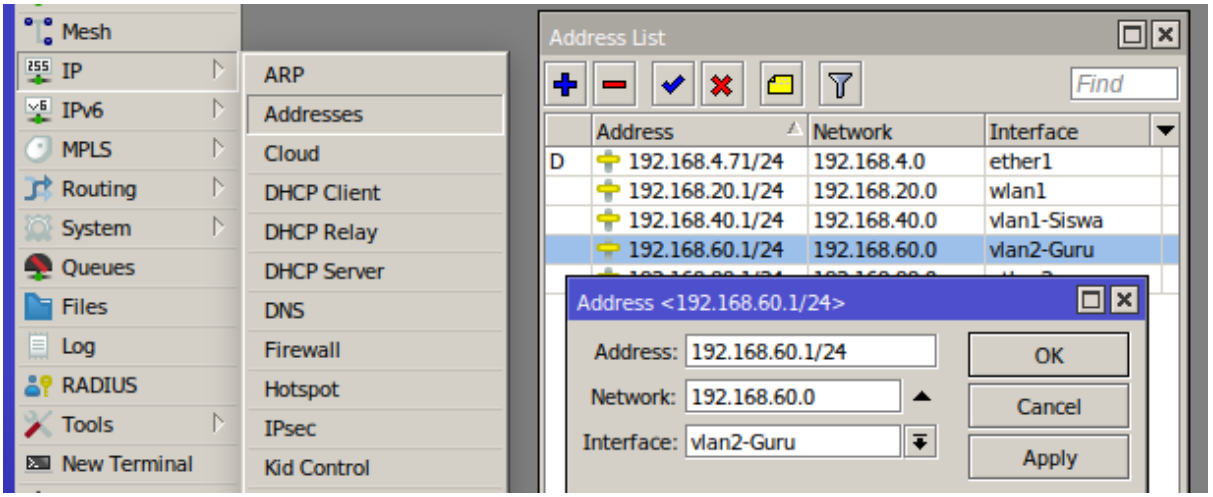
VLAN 1 - Siswa

- **Address : 192.168.40.1/24**
- **Network : otomatis setelah apply / OK (192.168.40.0)**
- **Interface : vlan1-Siswa**



VLAN 20 - Guru

- **Address : 192.168.60.1/24**
- **Network : otomatis setelah apply / OK (192.168.60.0)**
- **Interface : vlan2-Guru**



4. **Konfigurasi DHCP Server untuk VLAN dan Hotspot.**

IP -> DHCP Server -> DHCP Setup -> Kemudian ikuti sesuai soal untuk pool nya, tinggal next next aja.

a) VLAN 1

- IP VLAN 1 : 192.168.40.1/24

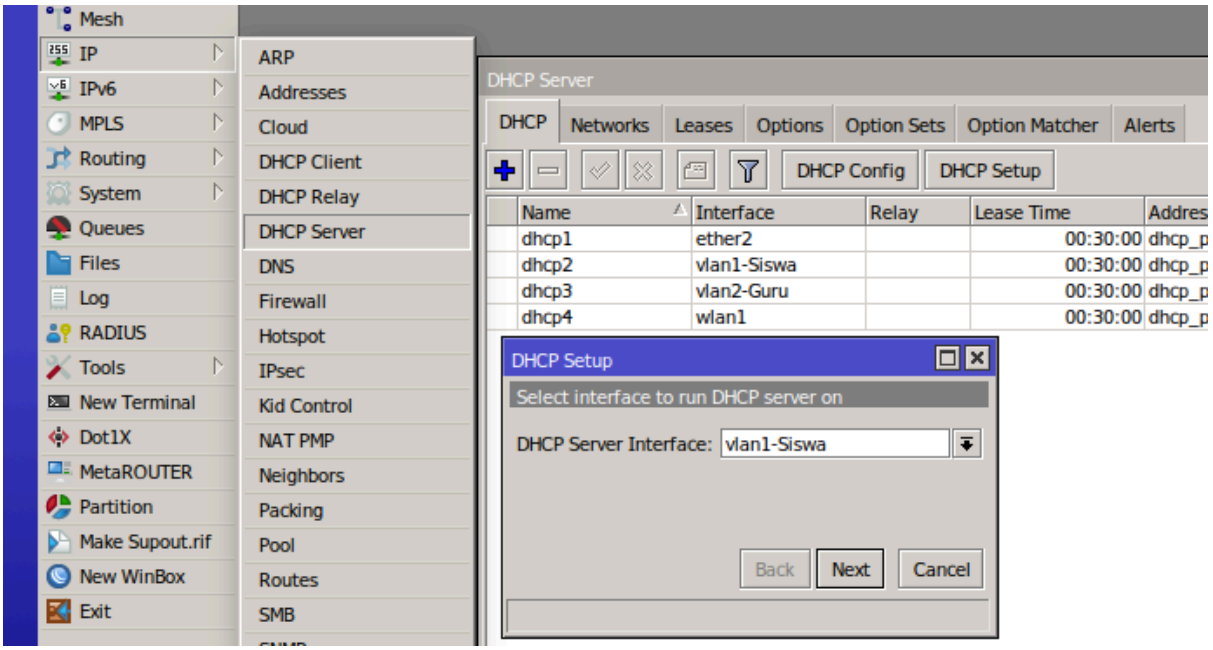
- DHCP Pool : 192.168.40.10 – 192.168.40.50

b) VLAN 2

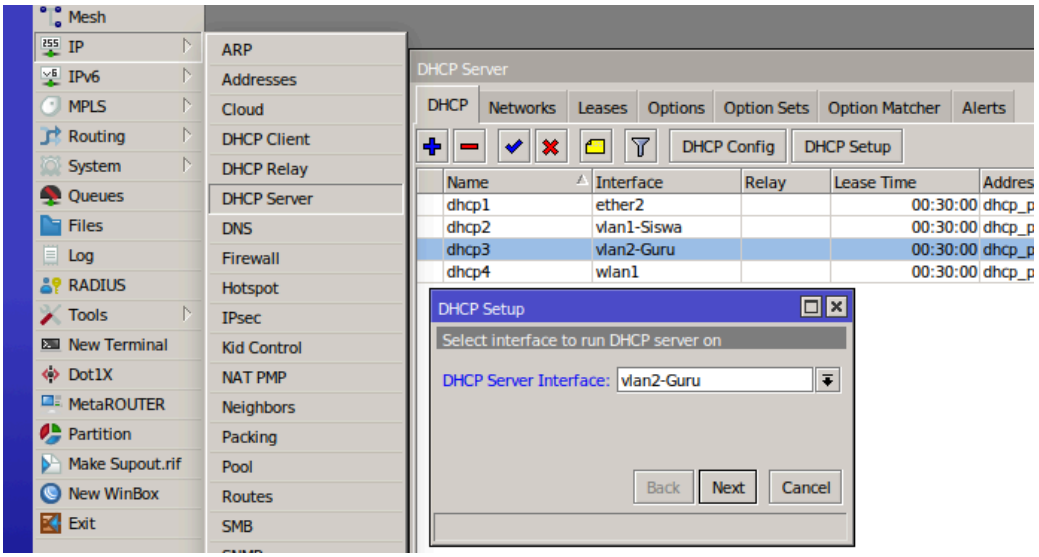
- IP VLAN 2 : 192.168.60.1/24

- DHCP Pool : 192.168.60.10 – 192.168.60.50

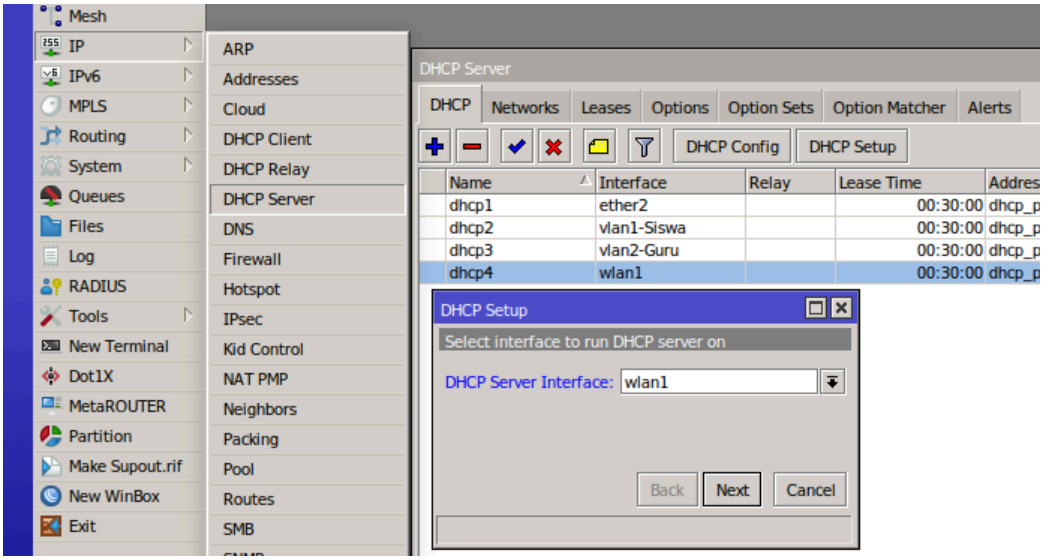
Konfigurasi pada Konfigurasi IP DHCP Server VLAN 1-Siswa



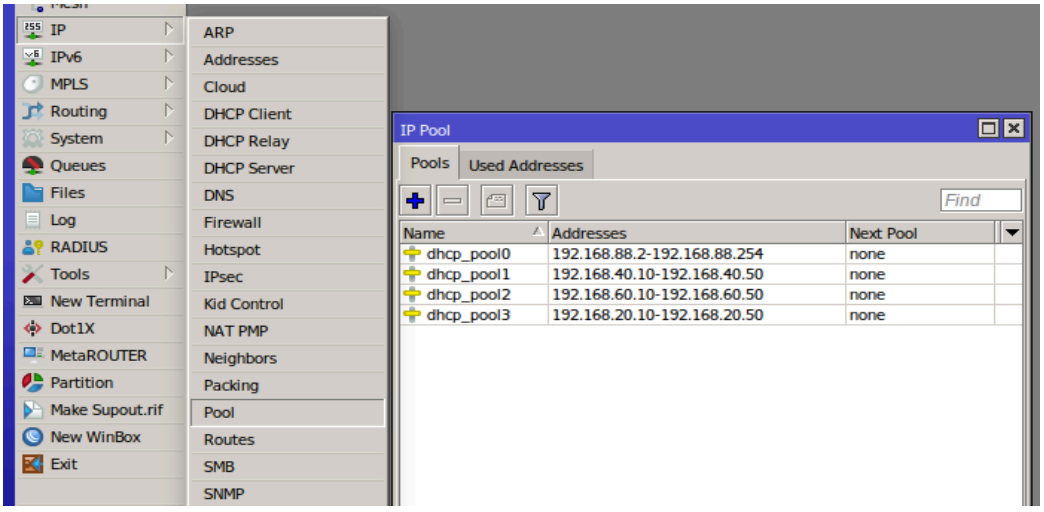
Konfigurasi pada Konfigurasi IP DHCP Server VLAN 2-Guru



Konfigurasi pada Konfigurasi IP DHCP Server WLAN 1



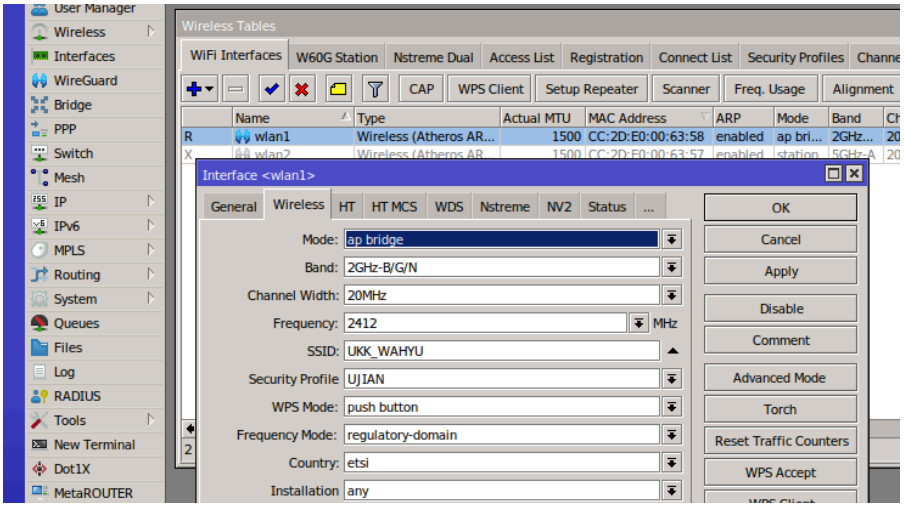
IP POOL



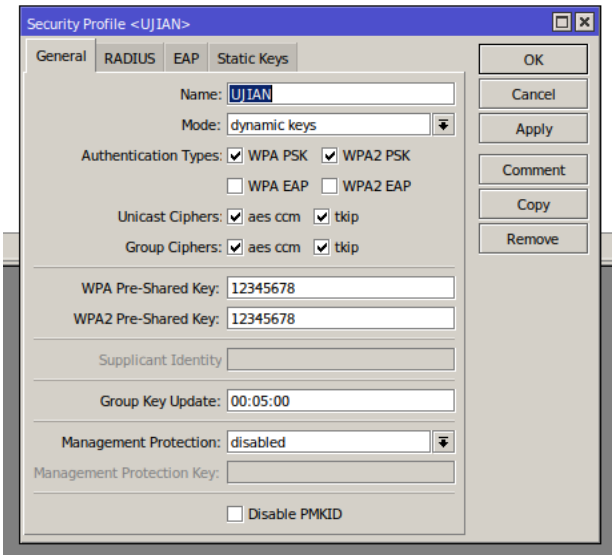
5. **Konfigurasi Wireless dan Hotspot**

- WLAN :

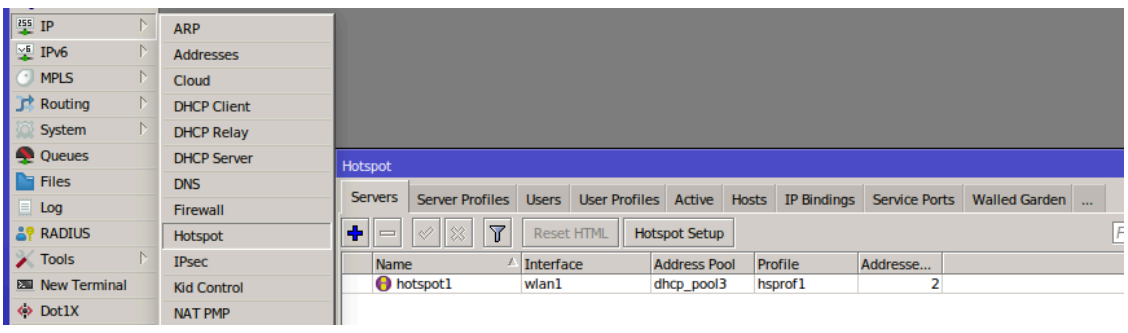
- IP WLAN : 192.168.20.1/24
- SSID : UKK_Nama
- Hotspot : alamat login hotspot = portalsmk.sch.id
- Ubah tampilan halaman login hotspot sehingga minimal terdapat tampilan tulisan : “Selamat Datang di Hotspot PeTIK”



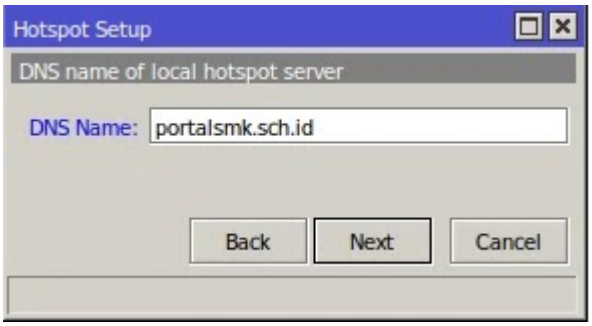
- Password : 12345678



Cara konfigurasi hotspot, buka menu IP > Hotspot, klik hotspot setup. Pilih interface yang akan menjalankan hotspot, yakni wlan1.



untuk alamatnya sesuai soal :

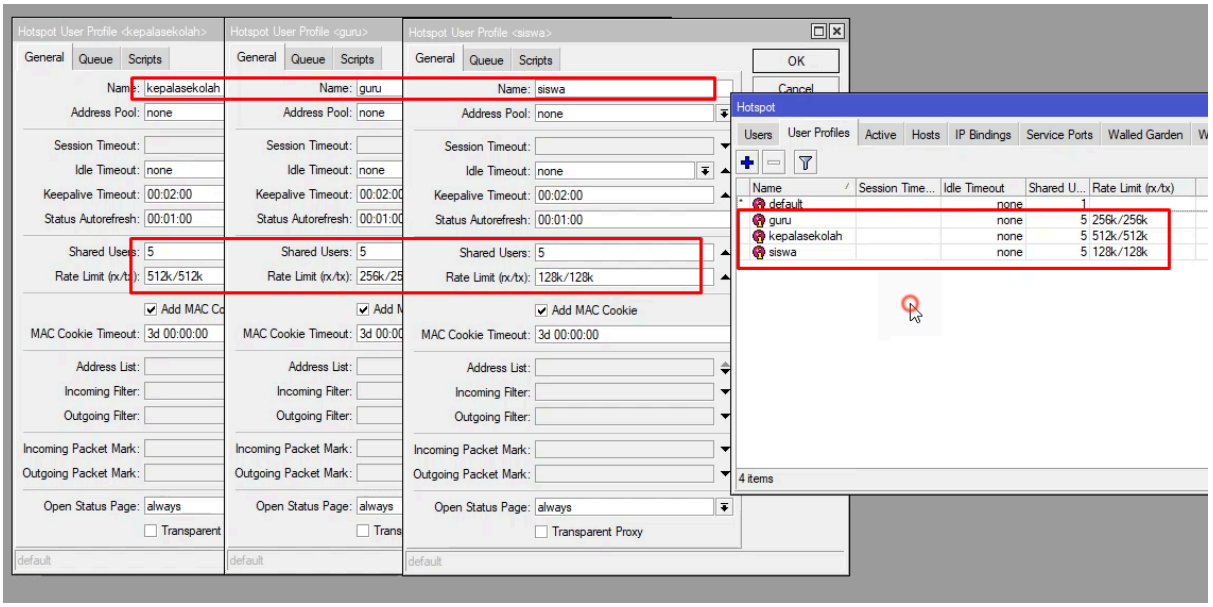


6. Tampilan Login Hotspot “Selamat datang di hotspot petik”

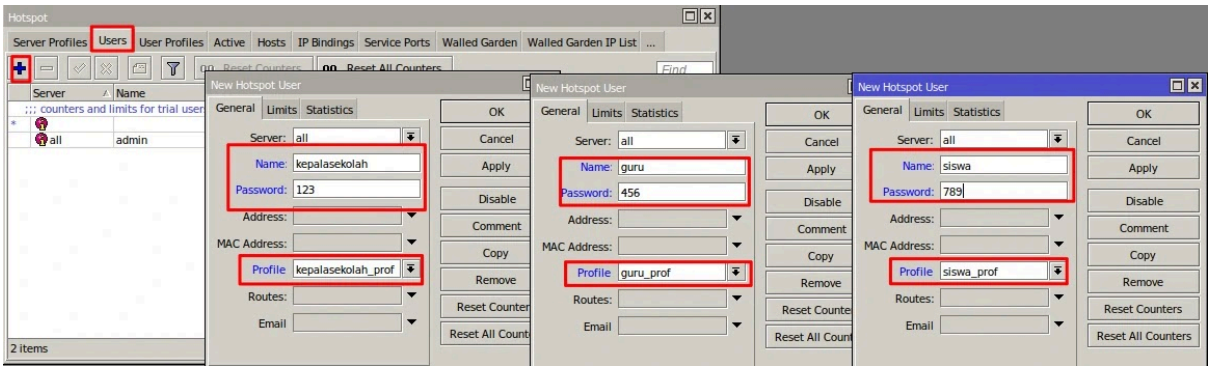
7. Membuat User Profile dan User Di Hotspot

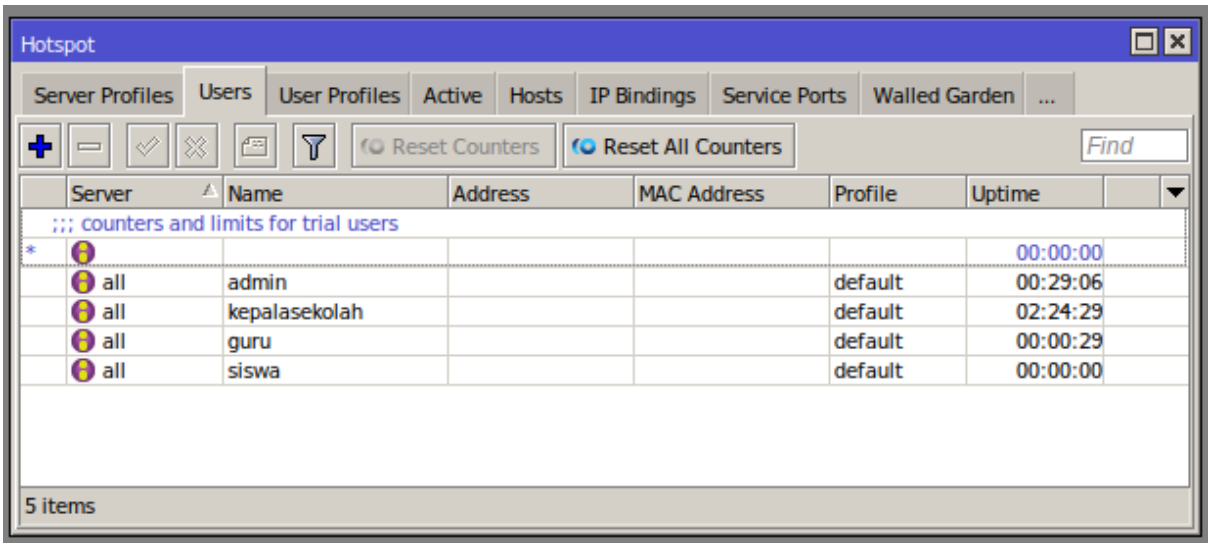
Buatlah user dengan ketentuan seperti berikut:

username	password	bandwidth
kepalasekolah	123	512k
guru	456	256k
siswa	789	128k



Setelah membuat user profile, sekarang kita buat user account-nya. Masih di menu **IP > Hotspot, pilih tab Users.** Tambahkan user sesuai nama dan password yang ada di soal, arahkan setiap user ke user profilnya masing-masing.





8. Mencoba login dengan user yang sudah di bikin

- **kepalasekolah**

Welcome kepalasekolah!

IP address:	192.168.20.50
bytes up/down:	1111 B / 2017 B
connected:	19s
status refresh:	1m

log off

- **guru**

Welcome guru!

IP address:	192.168.20.50
bytes up/down:	1161 B / 1891 B
connected:	10s
status refresh:	1m

log off

- **siswa**

Welcome siswa!

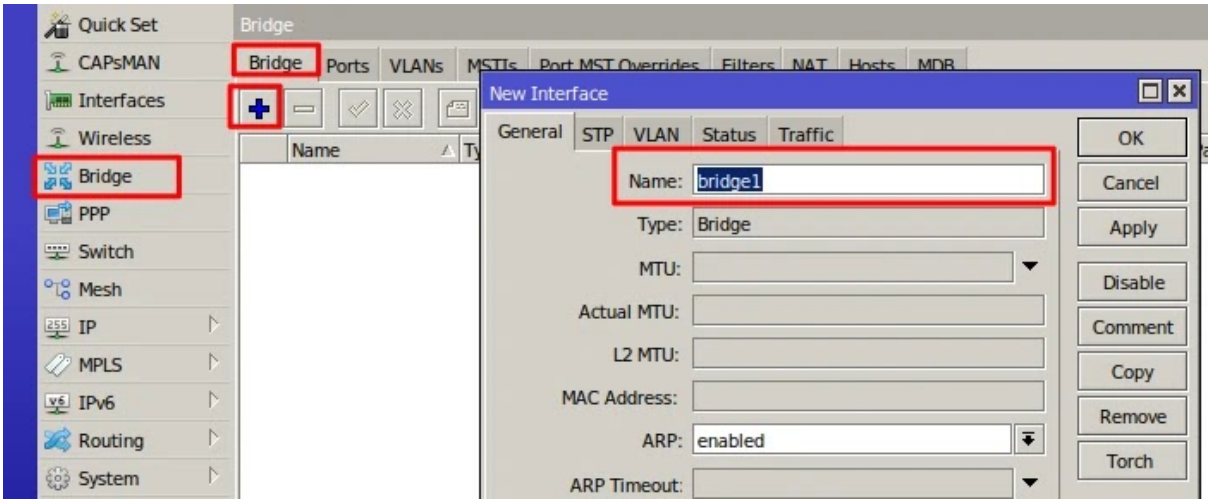
IP address:	192.168.20.50
bytes up/down:	757 B / 1241 B
connected:	46s
status refresh:	1m

log off

Kongfigurasi Switch :

1. **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"

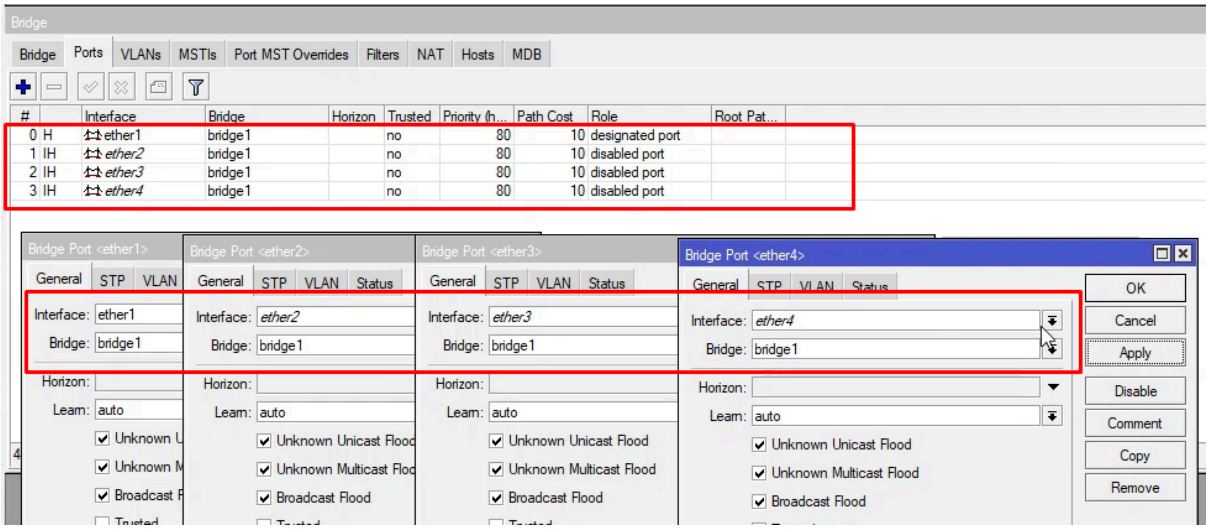
Bridge -> Tab Bridge -> Add (+) -> OK



Bridge -> tab Ports -> Add (+)

- **Interface : ether1**
  Bridge : bridge1
- **Interface : ether2**
  Bridge : bridge1
- **Interface : ether3**
  Bridge : bridge1
- **Interface : ether4**
  Bridge : bridge1

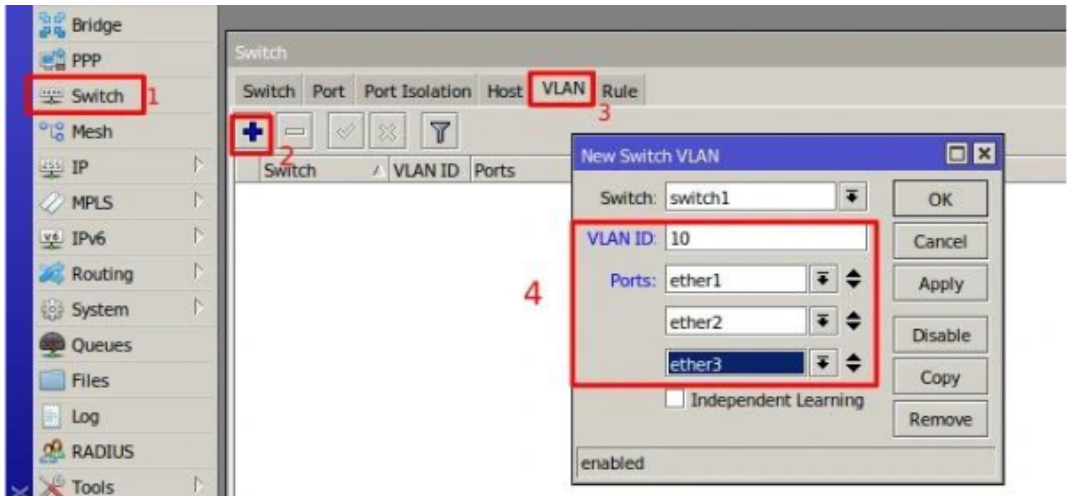
Pastikan jika sudah klik **OK.**



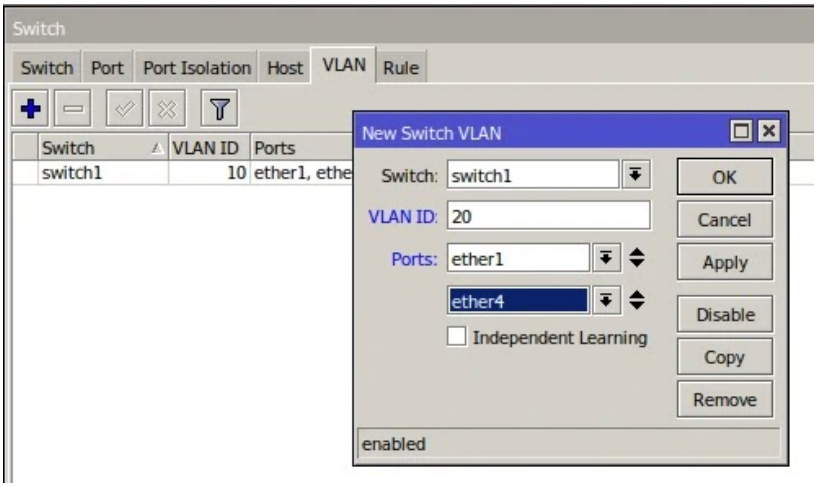
Switch -> Tab VLAN -> Add (+)

- **Switch : switch1**
  VLAN ID : 10
  Ports : ether1, ether2, ether3

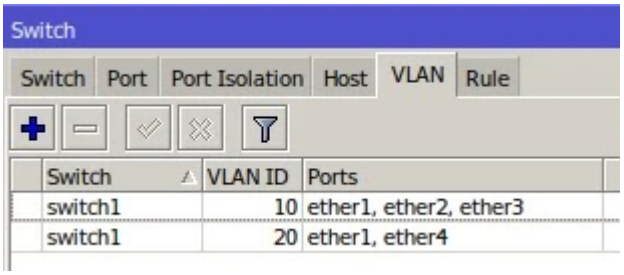
Jangan Lupa Klik OK atau Apply.



- **Switch : switch1**
  VLAN ID :20
  Ports : ether1, ether4



Sekarang di mikrotik switch kita sudah ada 2 vlan.



Jika sudah pada menu VLAN berikutnya kita akan ke Tab Port pada Switch

Switch -> Tab Port-> Konfigurasi pada ether1, ether2, ether3 dan ether4

Ether1

- **VLAN Mode : Secure**
- **VLAN Header : add if missing**
- **VLAN ID : 0**

Ether2

- **VLAN Mode : Secure**
- **VLAN Header : always strip**
- **VLAN ID :10**

Ether3

- **VLAN Mode : Secure**
- **VLAN Header : always strip**
- **VLAN ID : 10**

Ether4

- **VLAN Mode : Secure**
- **VLAN Header : always strip**
- **VLAN ID : 20**