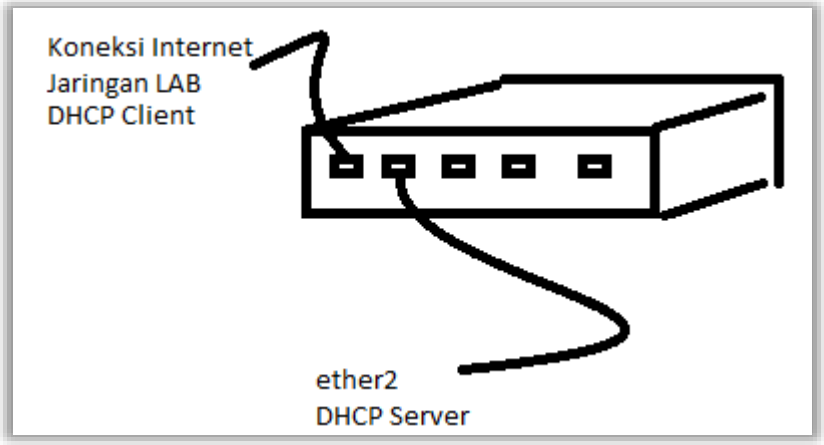
Membuat Jaringan dengan DHCP Server, DHCP Client dan NAT

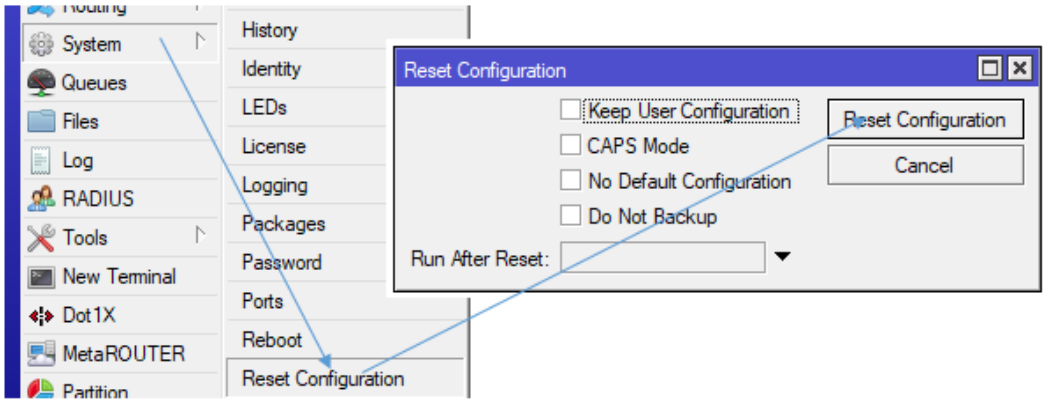
1. Konfigurasi Kabel

- Koneksi keluar seabagai **DHCP Client** lewat **ether1** ke jaringan LAB, (bisa koneksi ke Internet)
- **DHCP Server** untuk **ether2**, jaringan dalam,
- Lokal **IP address ether2= 192.168.10.0/24**
- seperti gambar berikut:



2. Reset System

- Sebelum melakukan konfigurasi lakukan **Reset System**, seperti pada gambar di bawah ini:

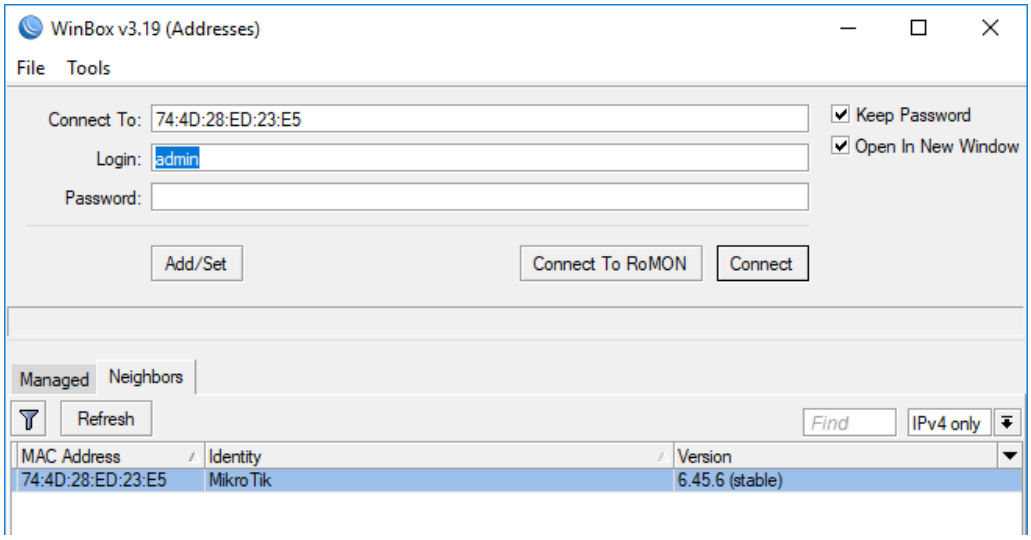


- Atau dengan ***command line***

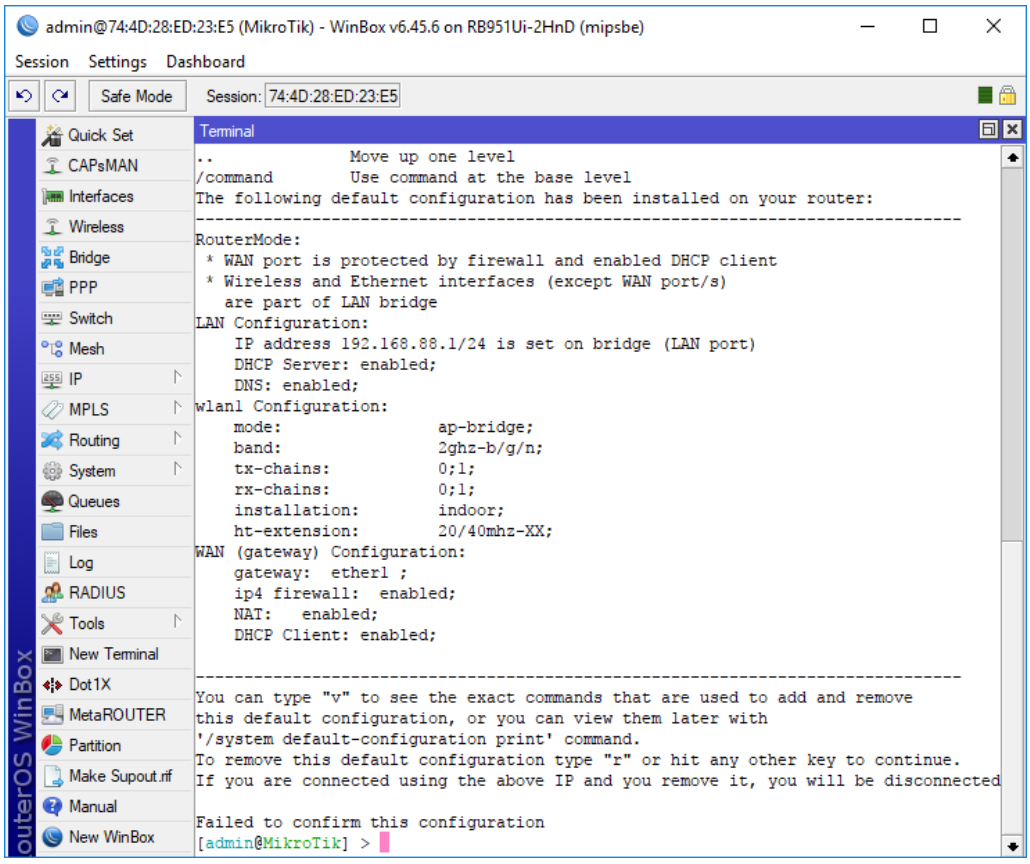
```
[admin@MikroTik] > system reset-configuration
```

3. Login Ke Router

- Login menggunakan **MAC Address**
- Klik **Connec** seperti pada gambar berikut:



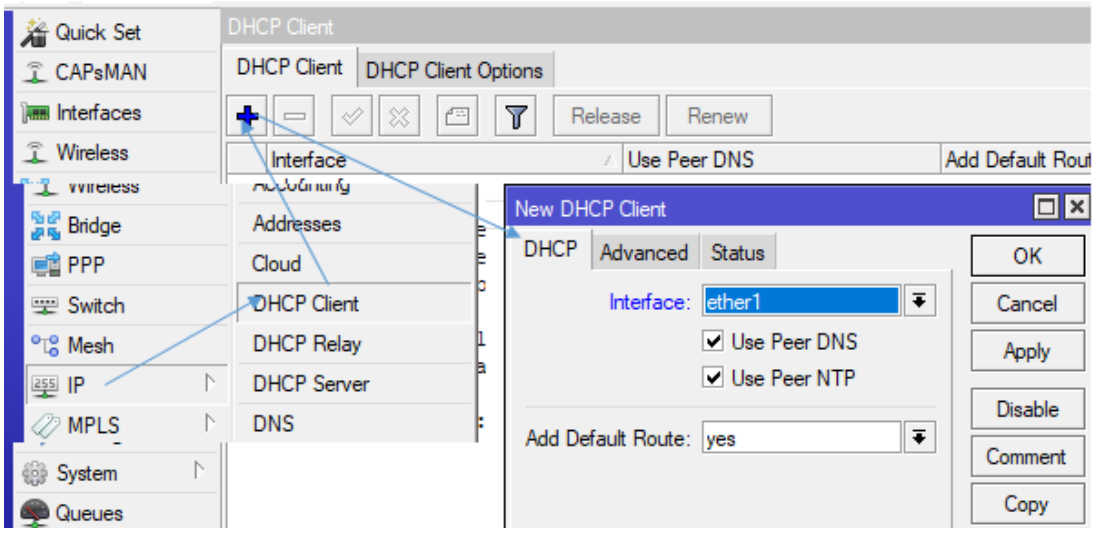
- Masuk ke menu utama mikrotik



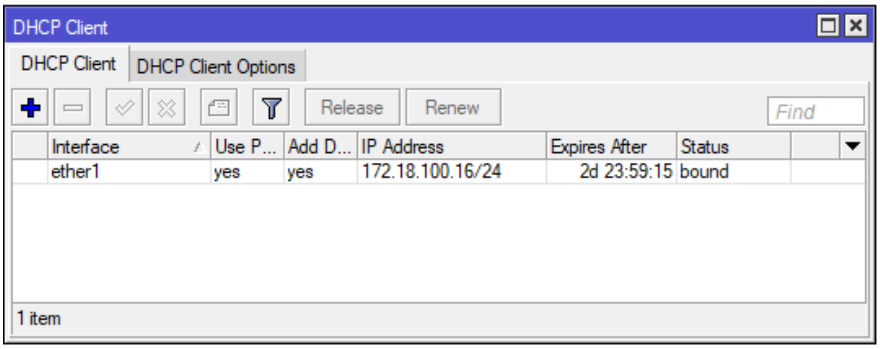
4. Membuat DHCP Client

- **Port ether1** terhubung ke internet, bagian dari client jaringan, di Laboratorium
- Klik **IP**
- Pili **DHCP Client**
- Klik Tombol 

- Pilih **DHCP** dan **Interface Ether1**
- Klik **OK** seperti pada Gambar berikut:

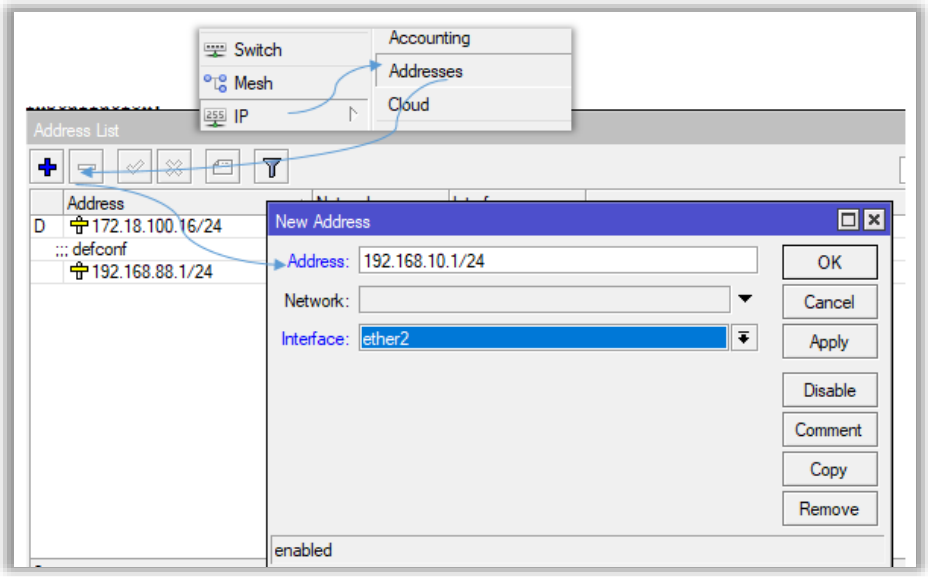


- Akan mendapatkan ip seperti berikut:



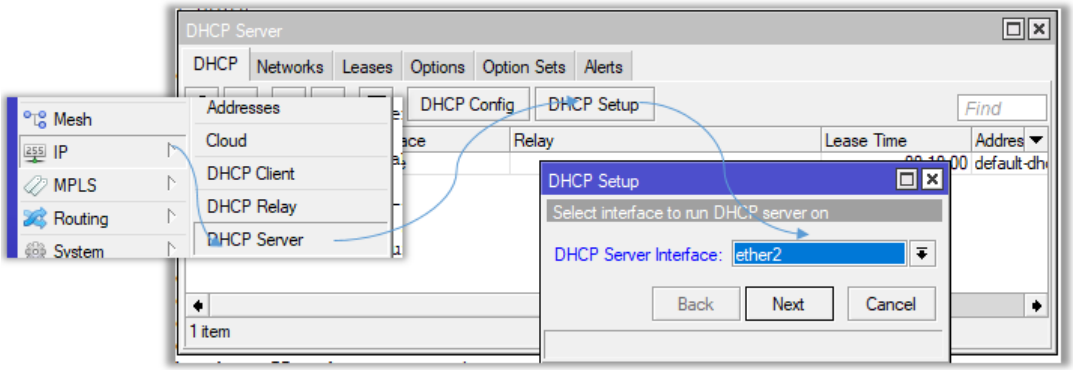
5. Memberi Ip Address pada ether2

- Pilih Klik **IP**
- Pilih Klik **Address**
- **Address List** Klik 
- Isikan **Address 192.168.10/24** dan
- Interface Pilih **ether2**
- Klik **OK**, seperti pada gambar berikut:

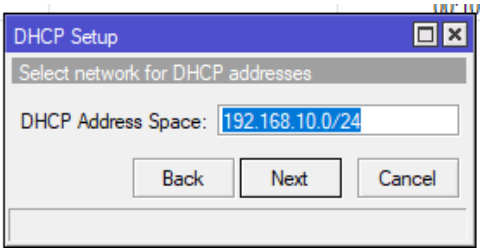


6. Membuat DHCP Server

- Pilih **IP**
- Klik **DHCP Server**
- Klik Tab **DHCP Setup**
- **DHCP Server Interface : ether2**

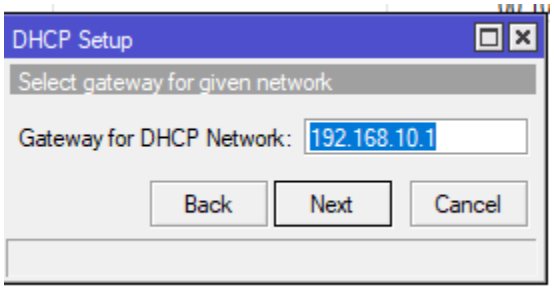


- Klik **Next**
- **DHCP Address space 192.168.10.0/24** (isi alamat jaringan), seperti gambar berikut:

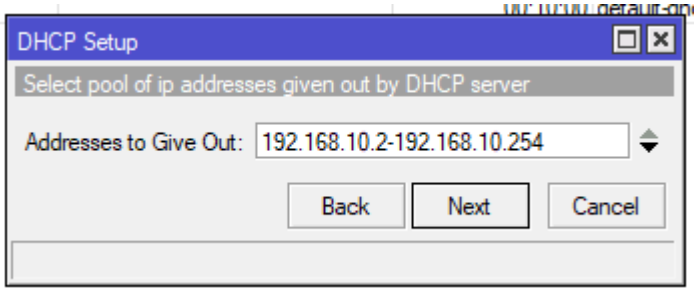


- Klik **Next**

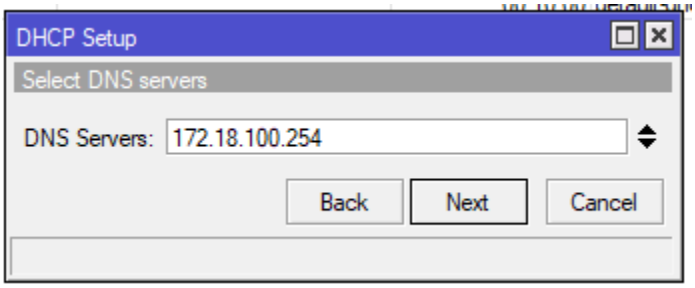
- **Gateway for DHCP Network : 192.168.10.1** (client akan menggunakan ip getaway/ip router), seperti pada gambar berikut:



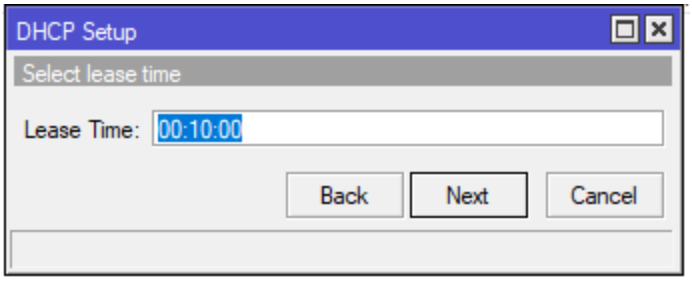
- Klik **Next**
- **Address to Give Out: 192.168.10.2 – 192.168.10.254** (untuk menentukan ip yang di berikan ke client antara 192.168.10.2 sampai 192.168.10.254) seperti pada gambar berikut:



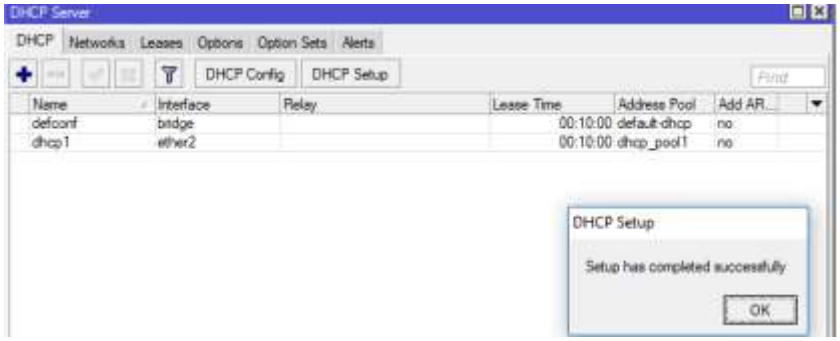
- Klik **Next**
- **DNS Server : 172.18.100.254** (mengikut dns haringan setempat), atau bisa gunakan ip router, lihat gambar berikut:



- Klik **Next**



- Klik **Next** Untuk mengakhiri hingga seperti gambar berikut:



- **Melihat DHCP Server**

  New Terminal Ketikan seperti berikut:

```
[admin@MikroTik] > ip dhcp-server print
Flags: D - dynamic, X - disabled, I - invalid
 #    NAME                                      INTERFACE
 0    defconf                                   bridge
 1    dhcp1                                     ether2

[admin@MikroTik] > ip dhcp-server network print
Flags: D - dynamic
 #   ADDRESS            GATEWAY    DNS-SERVER        WINS-SERVER     DOMAIN
 0   192.168.10.0/24    192.168.10.1
 1   ;;; defconf
     192.168.88.0/24    192.168.88.1

[admin@MikroTik] > ip pool print
 # NAME                              RANGES
 0 default-dhcp                      192.168.88.10-192.168.88.254
 1 dhcp_pool1                        192.168.10.2-192.168.10.254
```

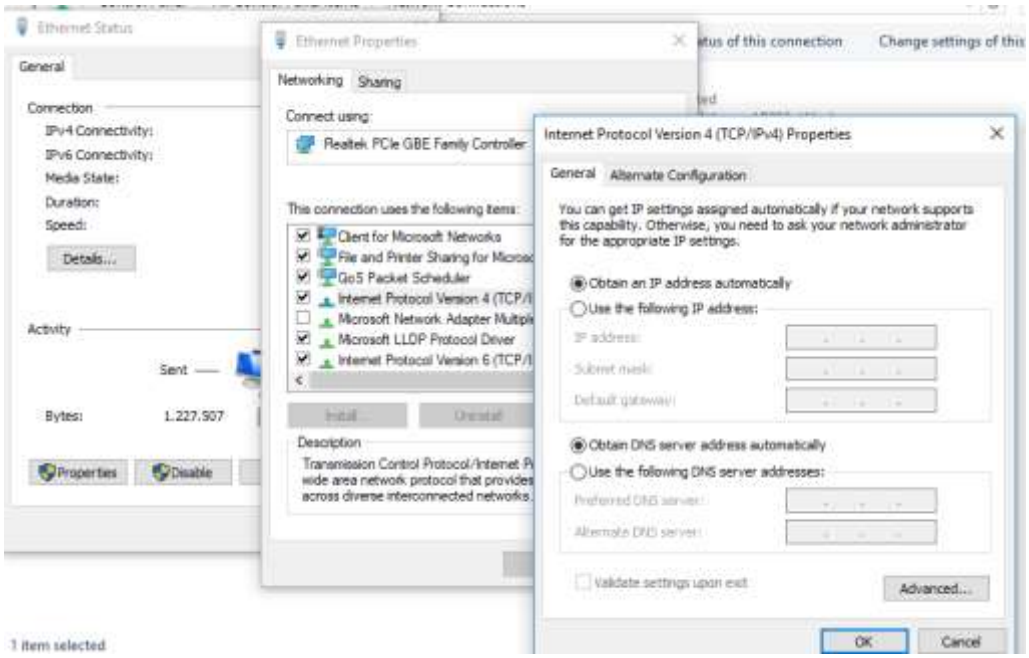
Atau contoh berikut **ether4** DHCP server dengn ip **192.168.40.0/24**

```
[admin@MikroTik] > ip address add interface=ether4 address=192.168.40.1/24
[admin@MikroTik] > ip dhcp-server
[admin@MikroTik] /ip dhcp-server> setup
Select interface to run DHCP server on

dhcp server interface: ether4
Select network for DHCP addresses

dhcp address space: 192.168.40.0/24
Select gateway for given network

gateway for dhcp network: 192.168.40.1
If this is remote network, enter address of DHCP relay

There is no such IP network on selected interface
dhcp relay: 192.168.40.1
```

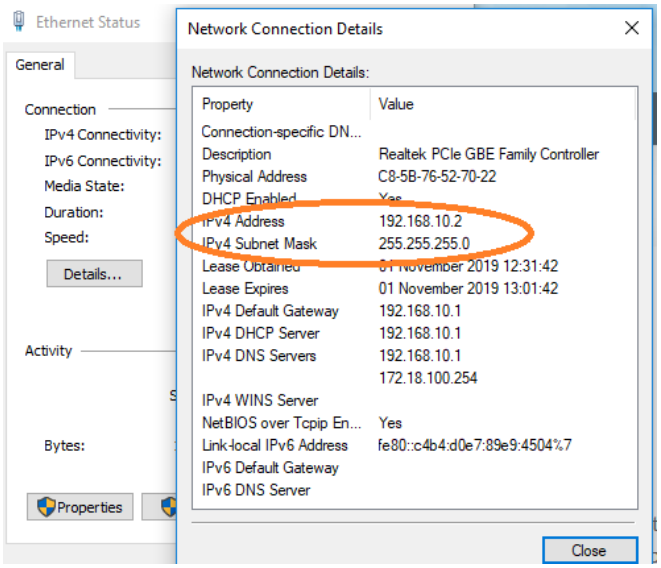
```
Select pool of ip addresses given out by DHCP server

addresses to give out: 192.168.40.2-192.168.40.254
Select DNS servers

dns servers: 172.18.100.254
Select lease time
lease time: 10m
[admin@MikroTik] /ip dhcp-server>
```

7. Komputer PC

- Setting
- Network

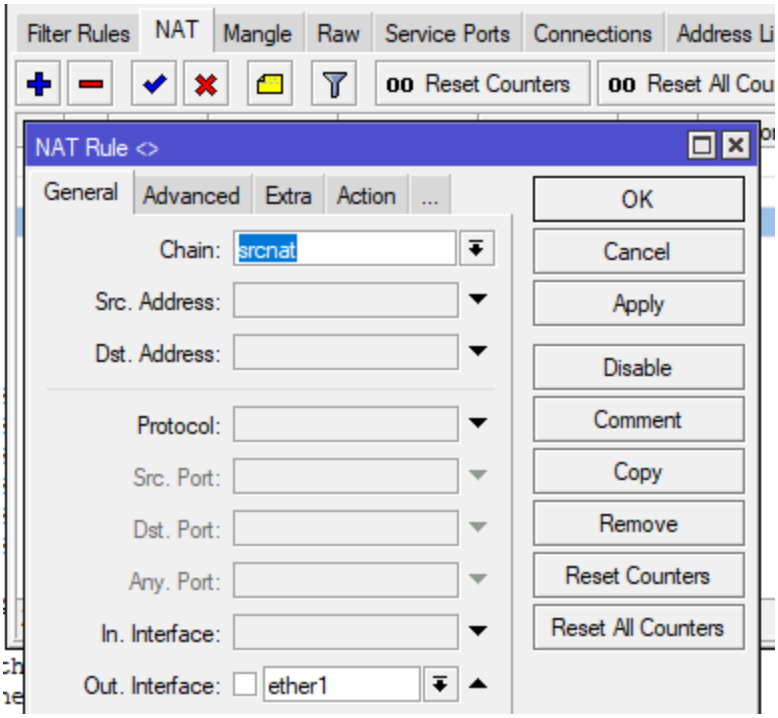


- Klik detail

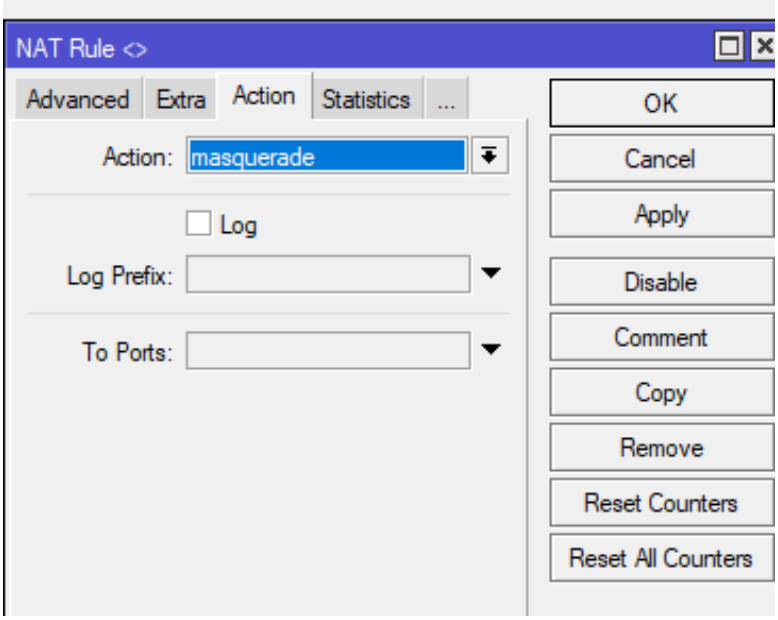


8. Konfigurasi NAT

- Keluar **srcnat**, dan **Out Interface: ether1**
- Seperti gambar berikut



- Lanjukan ke Klik Action, pilik Action: masquerade
- Klik OK, seperti pada gambar berikut:



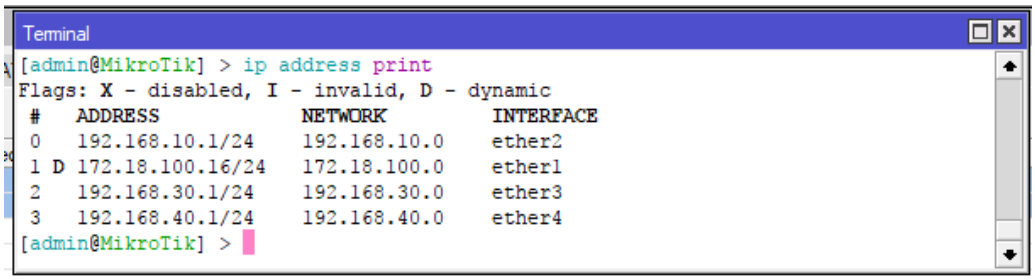
9. Membuat DHCP Server pada ether3

- Menggunakan Command Line terminal

```
[admin@MikroTik] > ip address add address=192.168.30.1/24 interface=ether3
[admin@MikroTik] > ip pool add name=poolPort3 ranges=192.168.20.1-192.168.20.100
[admin@MikroTik] > ip dhcp-server add address-pool=poolPort3 interface=ether3
[admin@MikroTik] > ip dhcp-server  network  add address=192.168.30.0/24
gateway=192.168.30.1 dns-server=192.168.30.1
```

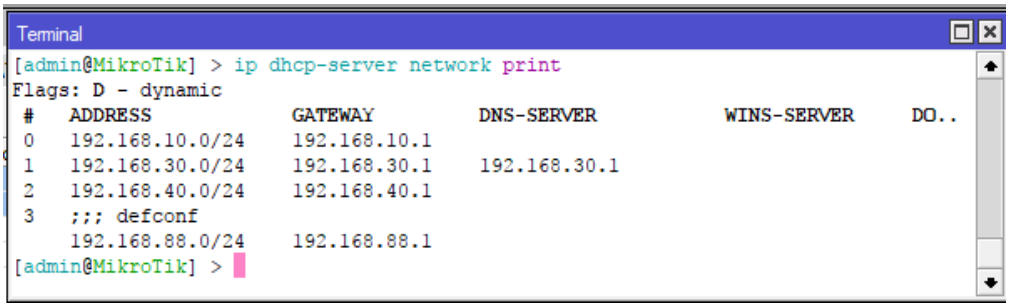
10. Lihat IP address

```
[admin@MikroTik] > ip address print
```



11. Lihat DHCP Network

```
[admin@MikroTik] > ip dhcp-server network print
```


Terminal
[admin@MikroTik] > ip dhcp-server network print
Flags: D - dynamic
 #   ADDRESS   GATEWAY   DNS-SERVER   WINS-SERVER   DO..
 0   192.168.10.0/24   192.168.10.1
 1   192.168.30.0/24   192.168.30.1   192.168.30.1
 2   192.168.40.0/24   192.168.40.1
 3   ;;; defconf
     192.168.88.0/24   192.168.88.1
[admin@MikroTik] >