

**Laporan Praktikum Konsep Jaringan  
NAT(Network Address Translations)**



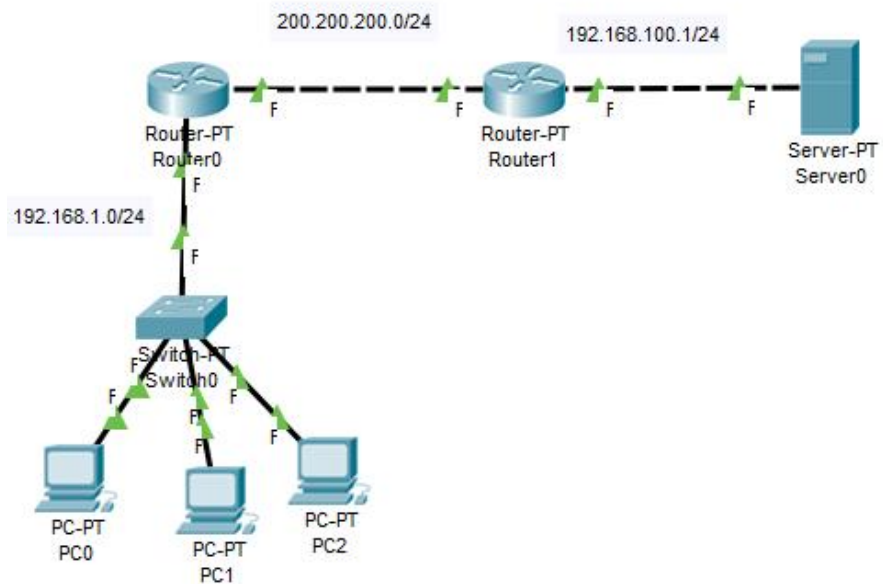
**Nama : Muhammad Hafid Azis**

**Kelas : 2D4 ITB**

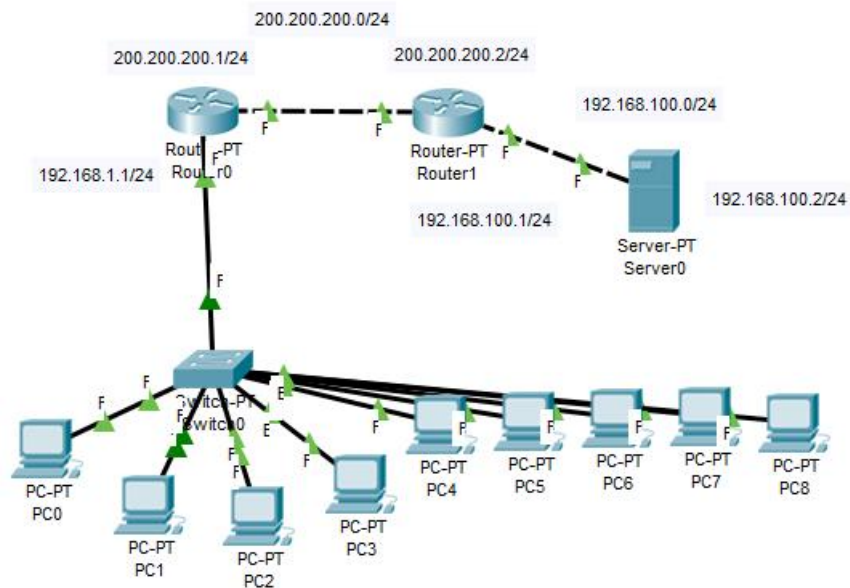
**NRP : 3121600055**

**PROGRAM STUDI D4 TEKNIK INFORMATIKA POLITEKNIK  
ELEKTRONIKA NEGERI SURABAYA 2021/2022**

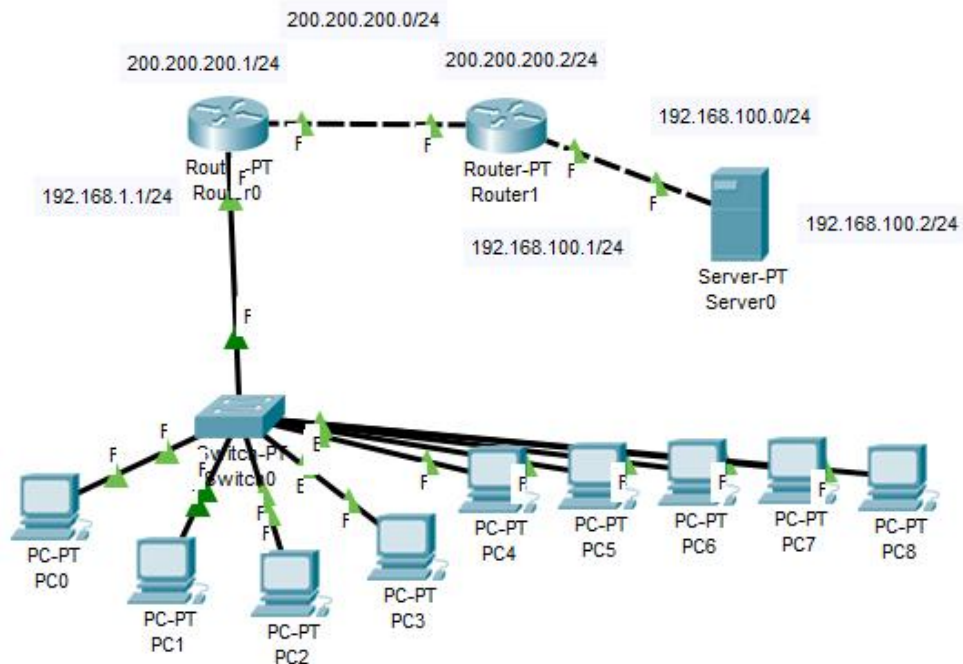
## Topologi NAT Static



## Topologi NAT Dynamic

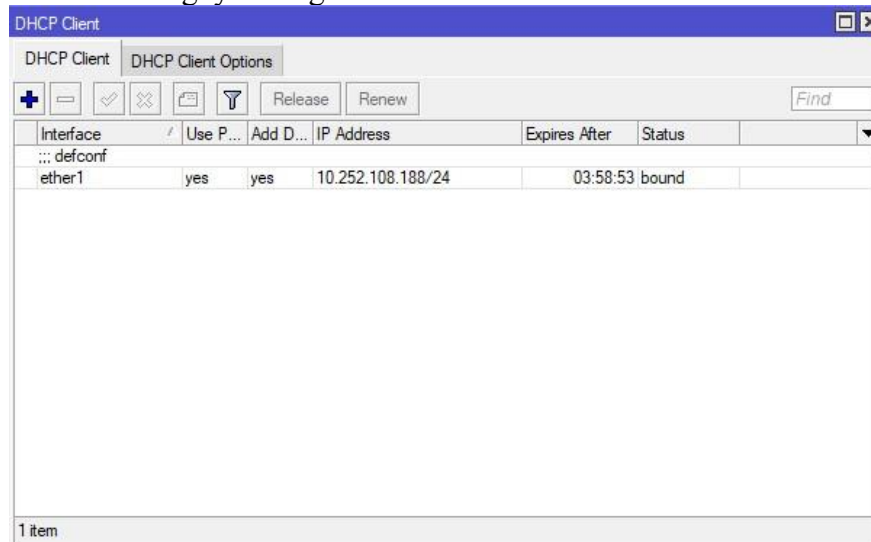


## Topologi NAT PAT



## Konfigurasi NAT di Mikrotik

buka **IP>DHCP Client**, dikarenakan LAN menggunakan DHCP maka kita harus mensettingnya sebagai DHCP Client



selanjutnya buka **IP>Address>klik +**, untuk mensetting IP pada Port 2

**New Address**

Address: 192.168.37.1/24

Network: 255.255.255.0

Interface: ether2-master

OK

Cancel

Apply

Disable

Comment

Copy

Remove

enabled

Jika sudah tampilan nya akan seperti berikut

**Address List**

Find

	Address	Network	Interface
D	10.252.108.18...	10.252.108.0	ether1
	192.168.37.1/...	192.168.37.0	ether2-master

2 items

Selanjutnya buka **IP>Farewall>NAT>klik +**

**Firewall**

Filter Rules NAT Mangle Service Ports Connections Address Lists Layer7 Protocols

Find all

#	Action	Chain	Src. Address	Dst. Address	Proto...	Src. Port	Dst. Port	In. Inter...	Out. Int...	Bytes	Packets
0	defconf: masquerade	mas...							ether1	1065.2 KB	20 635

1 item

Akan meuncul seperti ini pastikan **Out Interfaces ether1**

The screenshot shows the 'NAT Rule' configuration window with the 'General' tab selected. The 'Chain' is set to 'srcnat'. The 'Out. Interface' is set to 'ether1'. The 'Action' tab is visible but not selected. The right sidebar contains buttons: OK, Cancel, Apply, Disable, Comment, Copy, Remove, Reset Counters, and Reset All Counters.

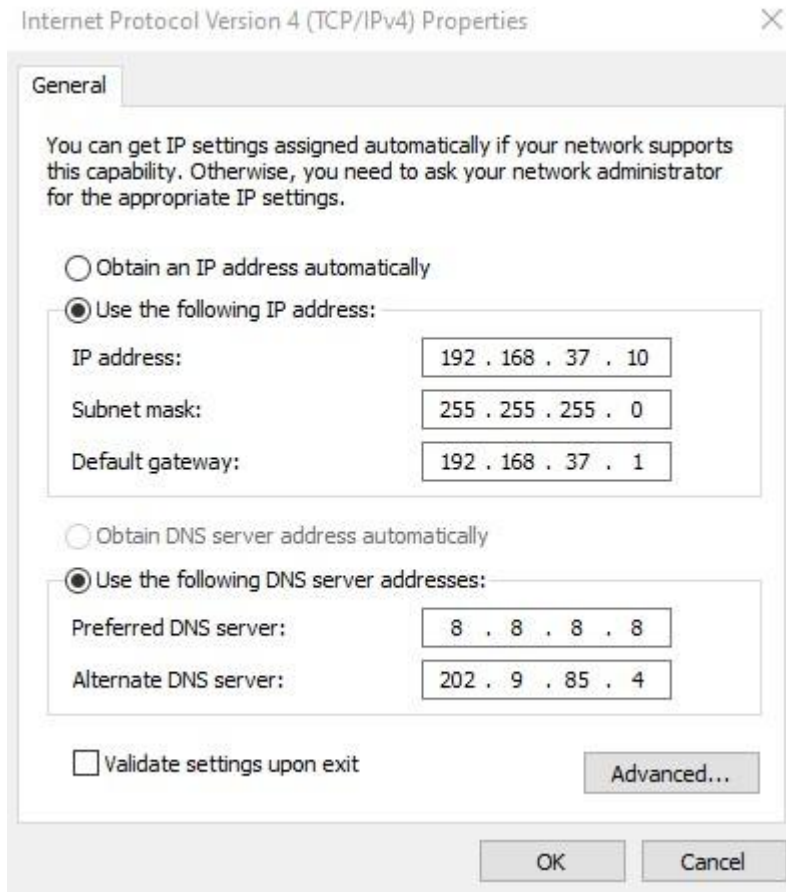
Field	Value
Chain	srcnat
Src. Address	
Dst. Address	
Protocol	
Src. Port	
Dst. Port	
Any. Port	
In. Interface	
Out. Interface	ether1
Packet Mark	
Connection Mark	
Routing Mark	
Routing Table	
Connection Type	

Selanjutnya buka bagian **Action** ubah action menjadi masquerade

The screenshot shows the 'NAT Rule' configuration window with the 'Action' tab selected. The 'Action' is set to 'masquerade'. The 'Log' checkbox is unchecked. The 'Log Prefix' field is empty. The right sidebar contains buttons: OK, Cancel, Apply, Disable, Comment, Copy, Remove, Reset Counters, and Reset All Counters.

Field	Value
Action	masquerade
Log	<input type="checkbox"/>
Log Prefix	

Kemudian samakan IP pada PC/Laptop dengan port 2 yang tadi kita sudah setting



Kemudian buka **CMD** dan ketikkan perintah **ipconfig** untuk melihat apakah ip sudah berubah sesuai yang tadi kita atur

```

Command Prompt

Ethernet adapter Ethernet 3:

    Connection-specific DNS Suffix  . : 
    Description . . . . . : Realtek PCIe GbE Family Controller
    Physical Address. . . . . : 00-90-F5-DF-95-A7
    DHCP Enabled. . . . . : No
    Autoconfiguration Enabled . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::28ba:d621:9b9d:d488%5(Preferred)
    IPv4 Address. . . . . : 192.168.37.10(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.37.1
    DHCPv6 IAID . . . . . : 83923180
    DHCPv6 Client DUID. . . . . : 00-01-00-01-2A-5C-30-42-00-90-F5-DF-95-A7
    DNS Servers . . . . . : fec0:0:0:ffff::1%1
                           : fec0:0:0:ffff::2%1
                           : fec0:0:0:ffff::3%1
    NetBIOS over Tcpip. . . . . : Enabled

Wireless LAN adapter Wi-Fi 4:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : pens.ac.id
    Description . . . . . : Realtek RTL8723AE Wireless LAN 802.11n PCI-E NIC
    Physical Address. . . . . : 20-16-D8-BF-03-24
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes
  
```

Kemudian PING gatewaynya

```
cmd Command Prompt
C:\Users\IMAM>ping 192.168.37.1

Pinging 192.168.37.1 with 32 bytes of data:
Reply from 192.168.37.1: bytes=32 time<1ms TTL=64
Reply from 192.168.37.1: bytes=32 time<1ms TTL=64
Reply from 192.168.37.1: bytes=32 time<1ms TTL=64
Reply from 192.168.37.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.37.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\IMAM>
```

Selanjutnya testing di PC/Laptop dengan membuka browser dengan alamat [www.pens.ac.id](http://www.pens.ac.id) dan [lecturer.pens.id](http://lecturer.pens.id), jika sudah muncul seperti dibawah berarti snat sudah berhasil dibuat

