PRAKTIKUM
DESAIN DAN MANAJEMEN JARINGAN KOMPUTER

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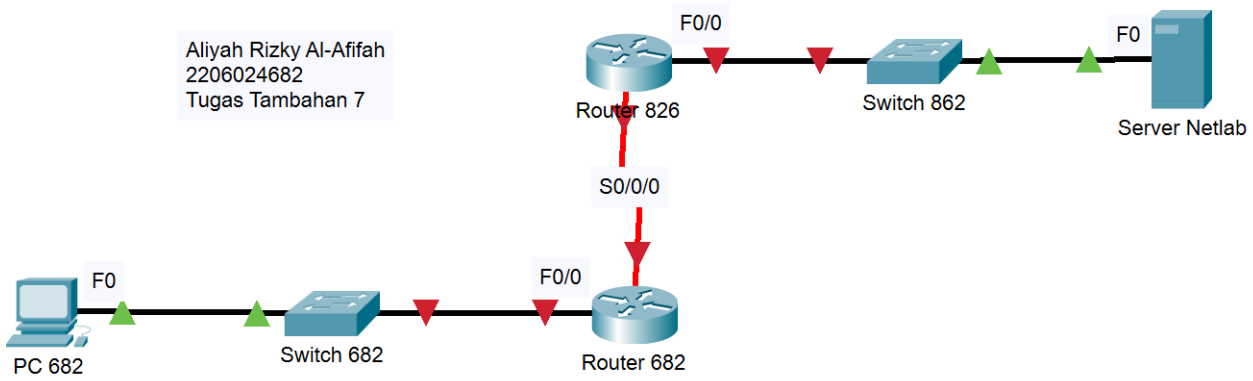
NPM	**2206024682**	**Tipe**	**Tugas Tambahan**

1. Topologi jaringan.

   X = 6; Y = 8; Z = 2.



2. *Addressing table.*

   X = 6; Y = 8; Z = 2.

Device	Interface	IP Address	Subnet Mask	Default Gateway
Router 682	F0/0	11.68.2.1	/24	
	S0/0/0	10.8.2.1	/30	
Router 826	F0/0	22.82.6.1	/24	
	S0/0/0	10.8.2.2	/30	
PC 682	F0	11.68.2.254	/24	11.68.2.1
Server Netlab	F0	22.82.6.254	/24	22.82.6.1

   Pengalamatan.

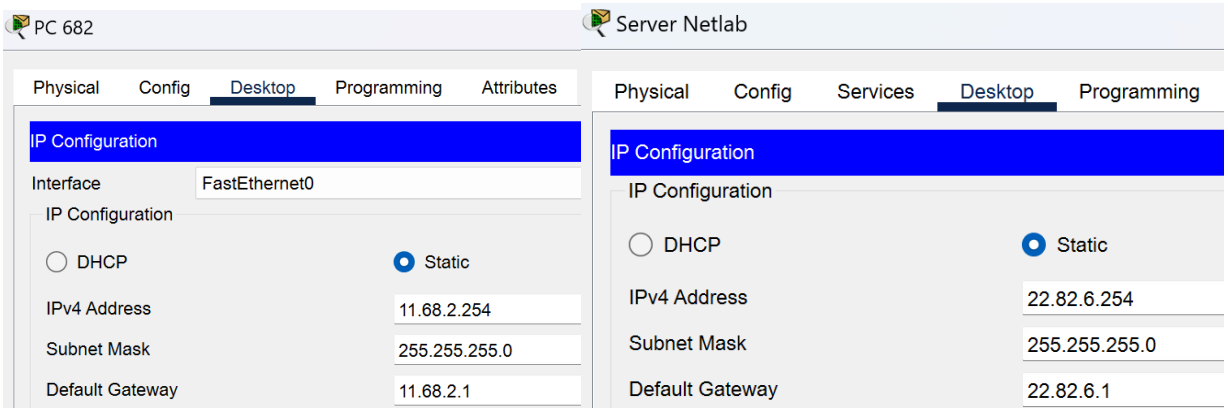
- Router682:

```
Router682(config)#int f0/0
Router682(config-if)#ip add 11.68.2.1 255.255.255.0
Router682(config-if)#no sh
Router682(config-if)#int s0/0/0
Router682(config-if)#ip add 10.8.2.1 255.255.255.252
Router682(config-if)#no sh
```

- Router826:

```
Router826(config)#int f0/0
Router826(config-if)#ip add 22.82.6.1 255.255.255.0
Router826(config-if)#no sh
Router826(config-if)#int s0/0/0
Router826(config-if)#ip add 10.8.2.2 255.255.255.252
Router826(config-if)#no sh
```

- *End devices*:



3. *Routing* EIGRP.

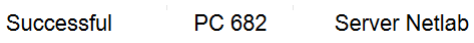
- Router682:

```
Router682(config)#router eigrp 5
Router682(config-router)#net 11.68.2.0 0.0.0.255
Router682(config-router)#net 10.8.2.0 0.0.0.3
Router682(config-router)#passive f0/0
```

- Router826:

```
Router826(config)#router eigrp 5
Router826(config-router)#net 22.82.6.0 0.0.0.3
Router826(config-router)#net 10.8.2.0 0.0.0.3
Router826(config-router)#passive f0/0
```

- Tes konektivitas:

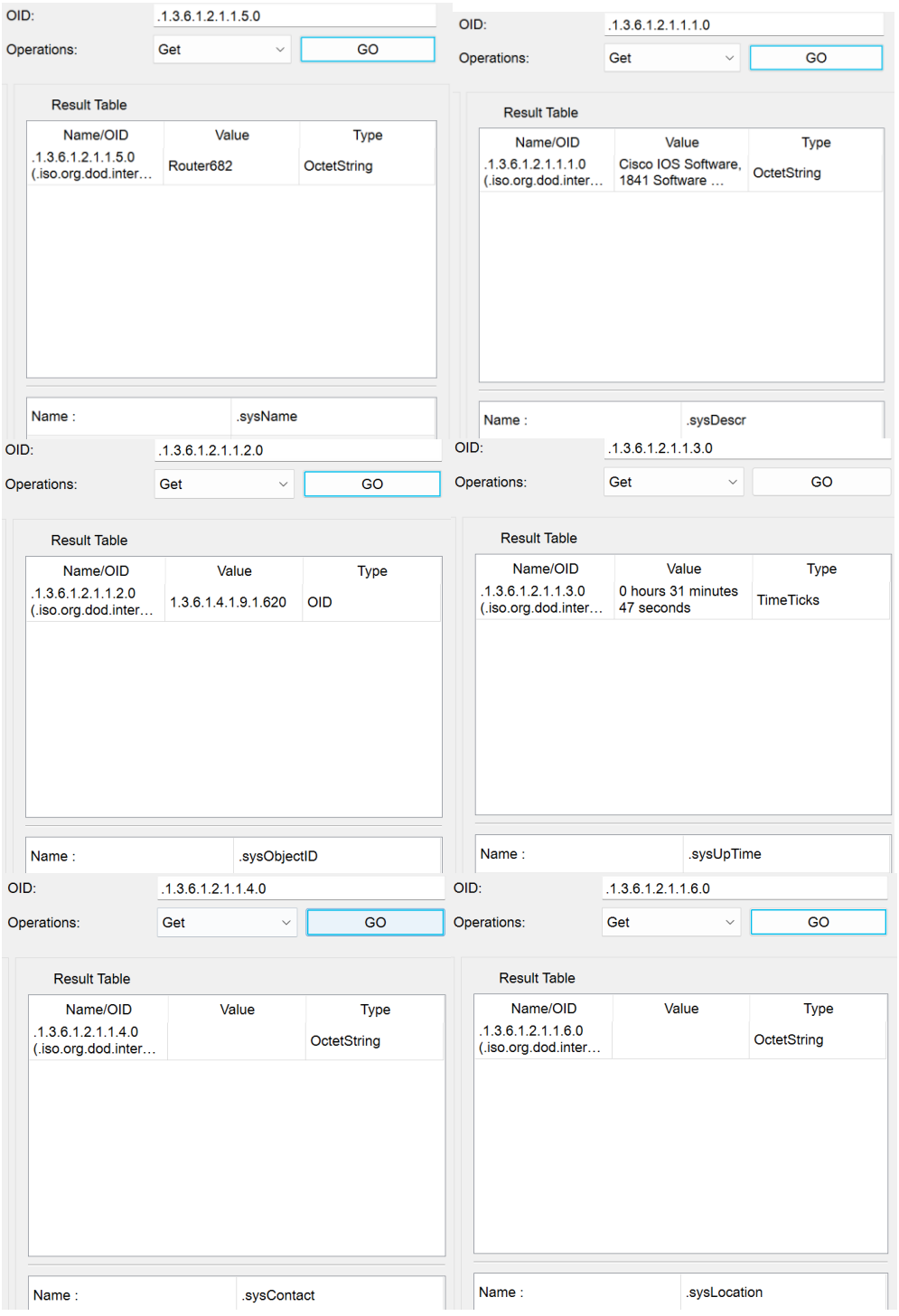


4. Konfigurasi SNMP.

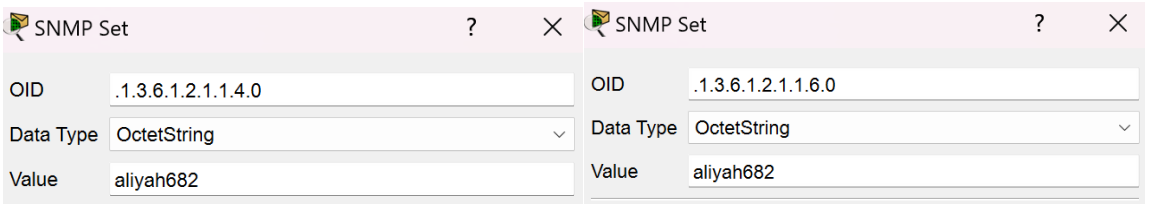
   Community string = aliyah682.

```
Router682(config)#snmp-server community aliyah682 rw
```

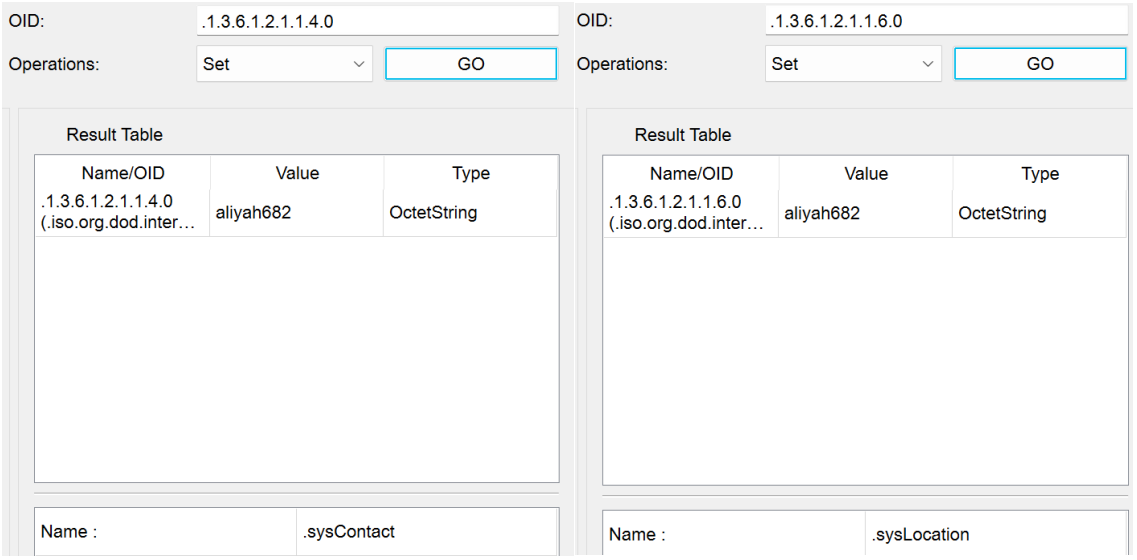
5. Hasil GET pada MIB *object*.



6. Modifikasi MIB *object* melalui PC 682.



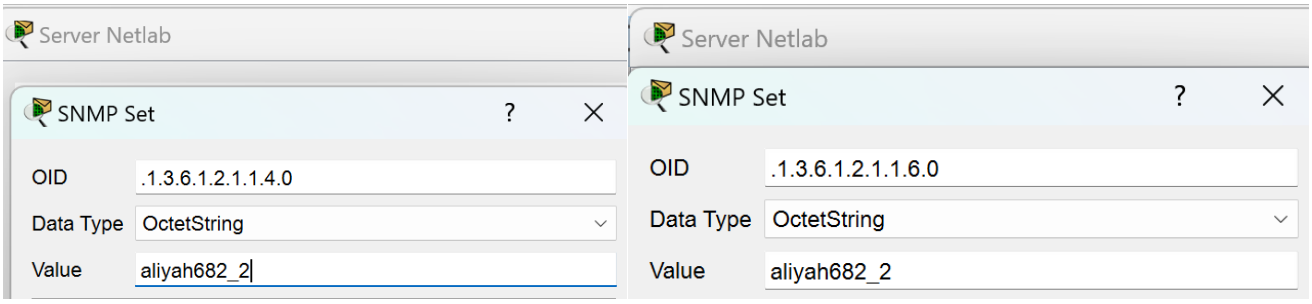
Hasil:



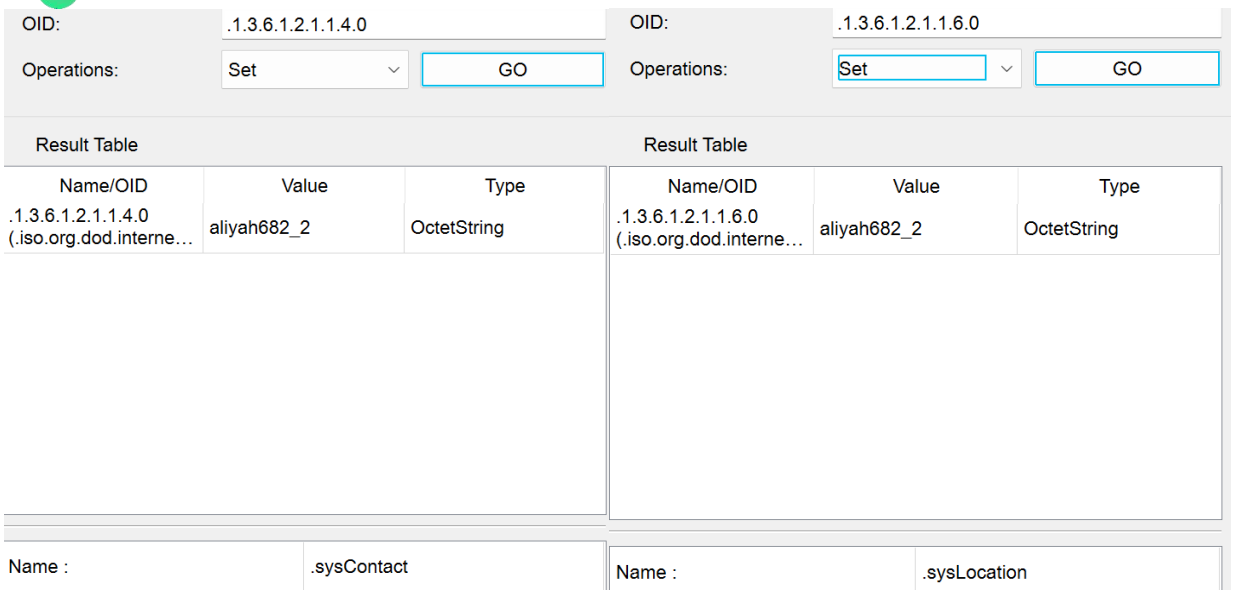
7. Konfigurasi NetFlow.

```
Router826(config)#int s0/0/0
Router826(config-if)#ip flow ingress
Router826(config-if)#ip flow egress
Router826(config)#ip flow-export ver  9
```

8. Modifikasi MIB *object* melalui Server Netlab.



Hasil:



9. *Command* **show ip cache flow**.

```
Router826#sh ip cache flow
IP packet size distribution (130 total packets):
   1-32   64   96  128  160  192  224  256  288  320  352  384  416  448  480
   .000 .946 .054 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

    512  544  576 1024 1536 2048 2560 3072 3584 4096 4608
   .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

IP Flow Switching Cache, 278544 bytes
  1 active, 4095 inactive, 9 added
  7 ager polls, 0 flow alloc failures
  Active flows timeout in 30 minutes
  Inactive flows timeout in 15 seconds
IP Sub Flow Cache, 34056 bytes
  0 active, 1024 inactive, 0 added, 0 added to flow
  0 alloc failures, 0 force free
  1 chunk, 1 chunk added
  last clearing of statistics never
Protocol         Total    Flows   Packets Bytes  Packets Active(Sec) Idle(Sec)
--------         Flows     /Sec     /Flow  /Pkt     /Sec     /Flow     /Flow
UDP-SNMP             8      0.0         1    68      0.0       3.5     177.0
Total:               8      0.0         1    68      0.0       3.5     177.0
```

Setelah mengaktifkan netflow pada Router826 dan melakukan modifikasi MIB *object* melalui Server Netlab, tedapat paket SNMP yang terdeteksi oleh Router826. Ukuran distribusi paket yang tercatatat (paket dengan protokol SNMP) lebih besar daripada paket biasa, misalnya paket dengan protokol ICMP. Hanya terdapat 1 aliran yang aktif, yaitu aliran untuk protokol SNMP. Router826 juga mencatat bahwa terdapat 8 aliran yang menggunakan protokol UDP-SNMP, aliran ini mencakup paket dengan tipe SetRequest.

```
SrcIf         SrcIPaddress    DstIf         DstIPaddress    Pr SrcP DstP  Pkts
Se0/0/0       10.8.2.1        Null          224.0.0.10      58 0000 0000   120
```

Selanjutnya, MIB object yang dimodifikasi adalah untuk Router682, karena itu *source interface*-nya adalah dari S0/0/0 dan *source* IP *address*-nya adalah alamat IP Router682 untuk *interface* S0/0/0. *Destination interface*-nya adalah null, karena paket dikirimkan secara *multicast*. Dan terakhir, terdapat 120 paket yang diamati dalam aliran ini.