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NIM : L200170054

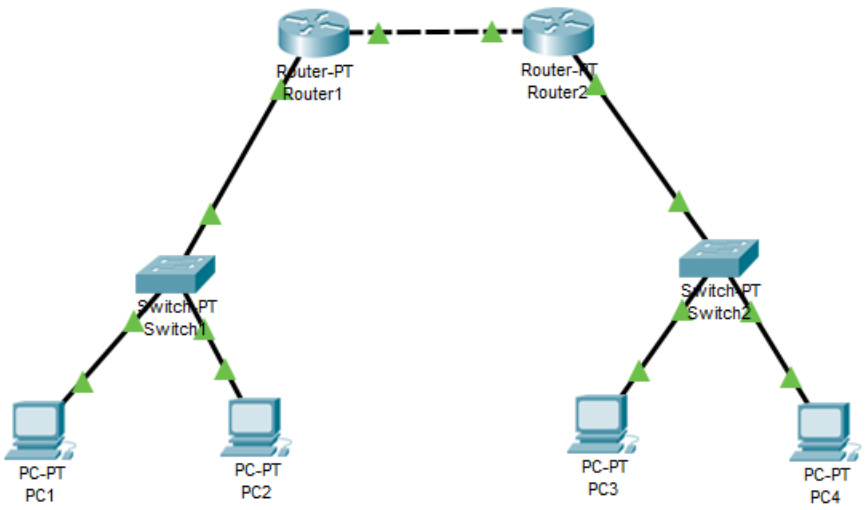
Kelas : B

Modul 8

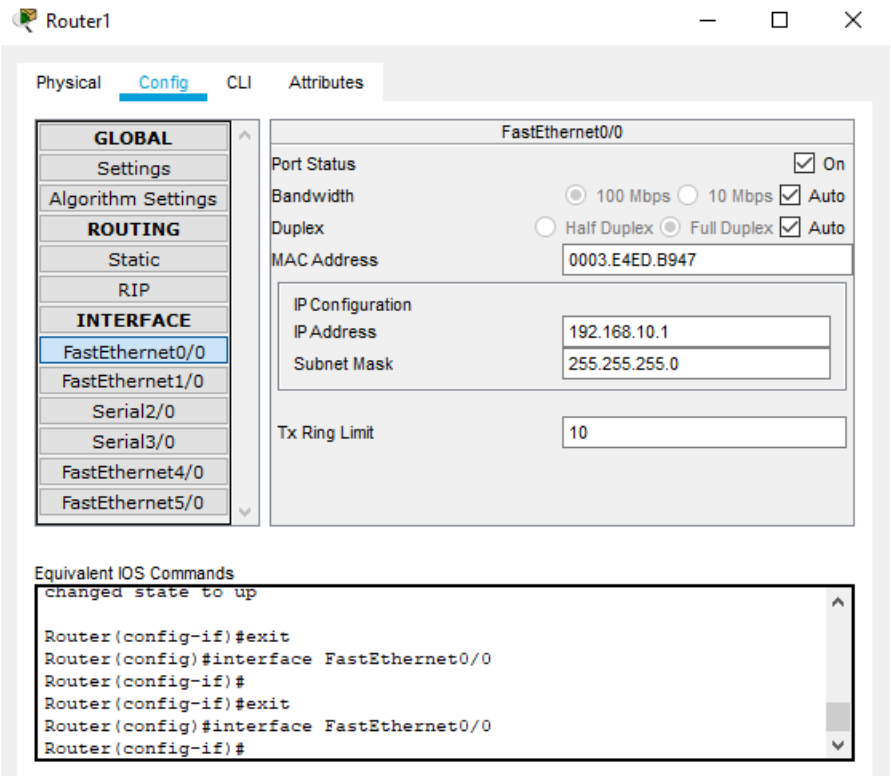
SETTING DYNAMIC ROUTING & FILTERING

Kegiatan 1.Konfigurasi Access List

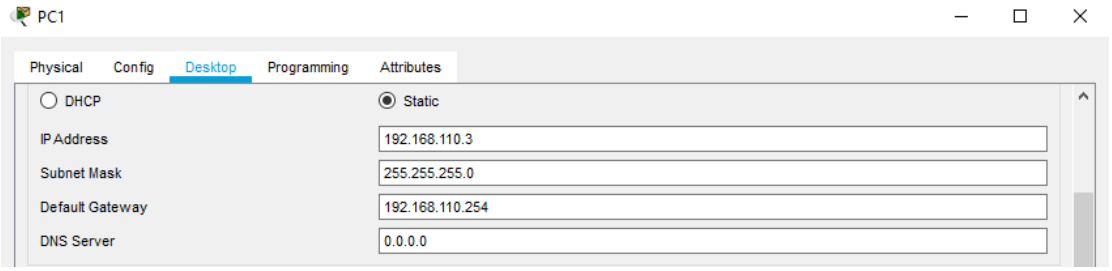
1. Membuat desain topologi jaringan

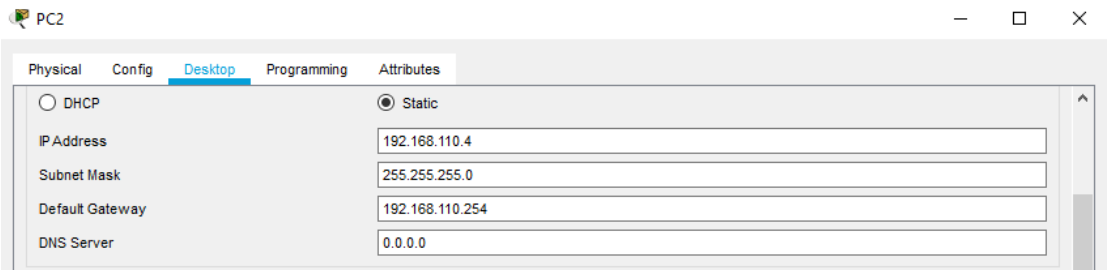


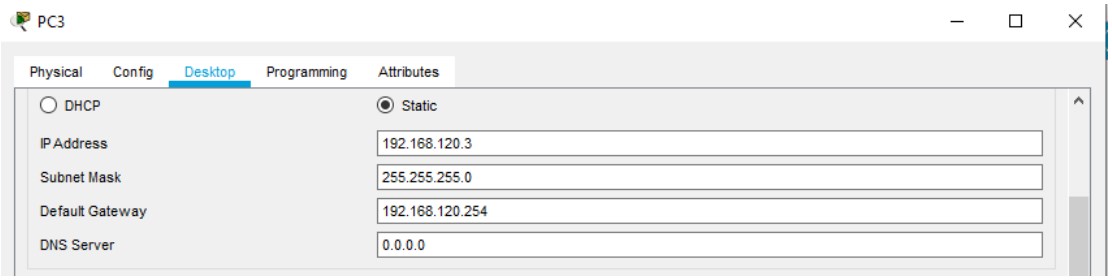
2. Memberikan IP Address untuk setiap router, masing masing di fa 0/0 dan fa 1/0 sesuai dengan di modul. Berikut contoh pada fa 0/0 di Router 1

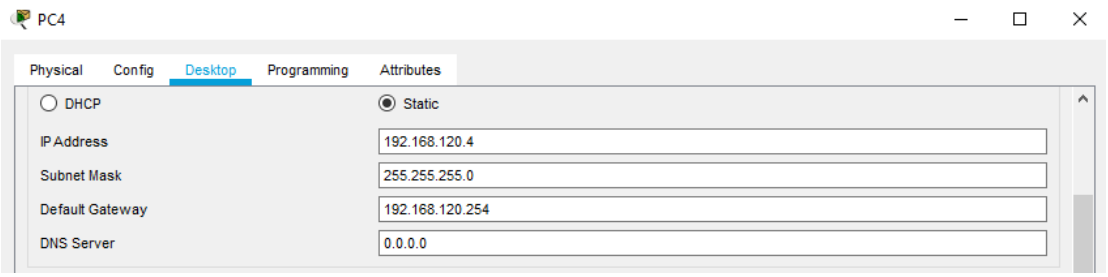


3. Memberikan IP Address untuk setiap PC

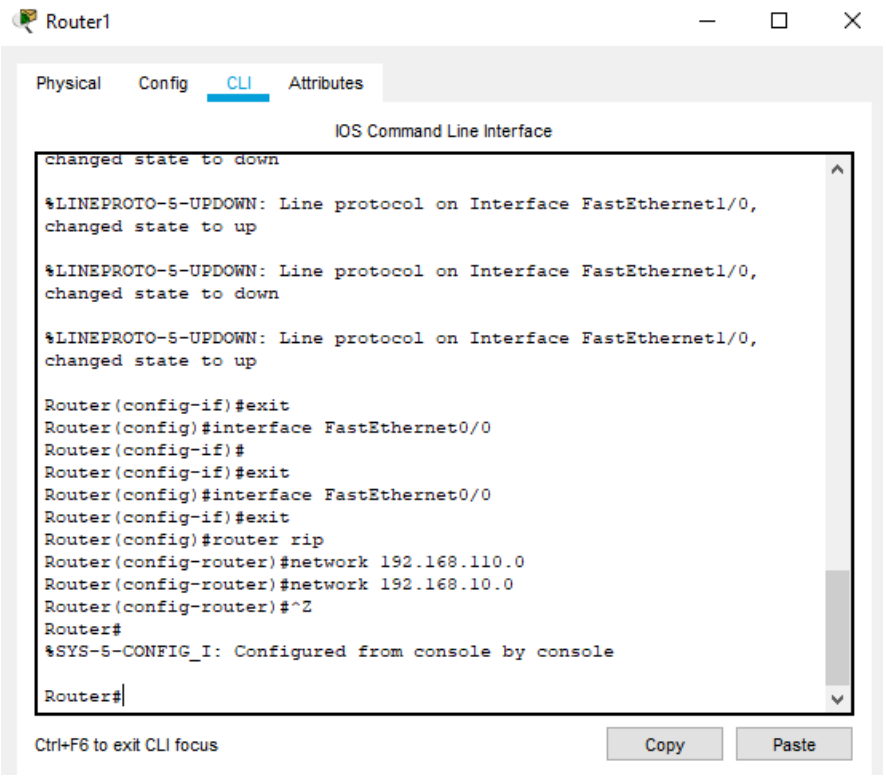


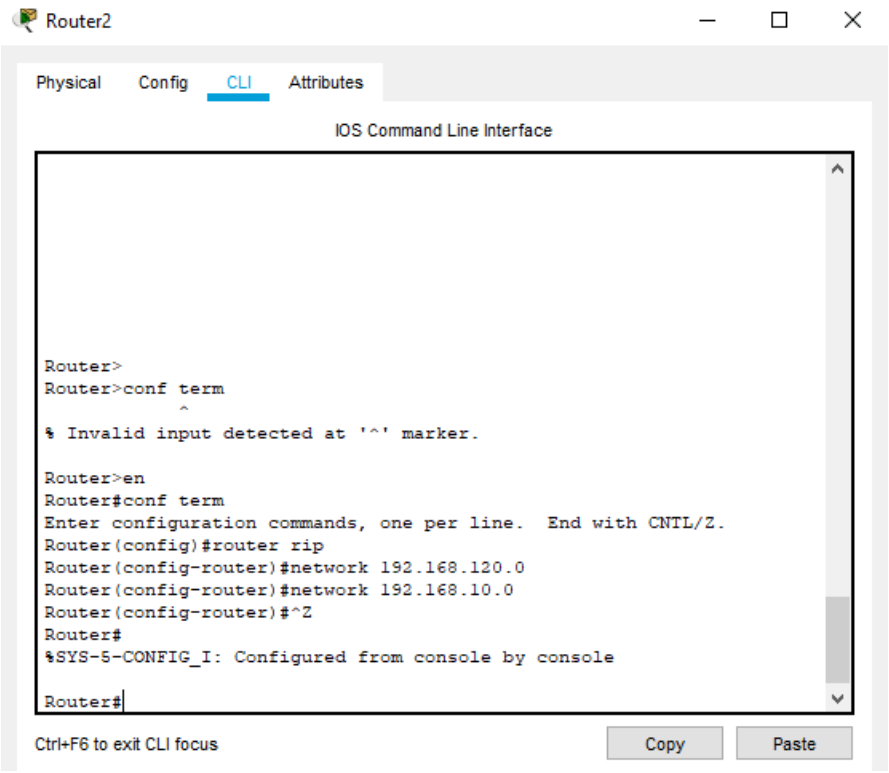




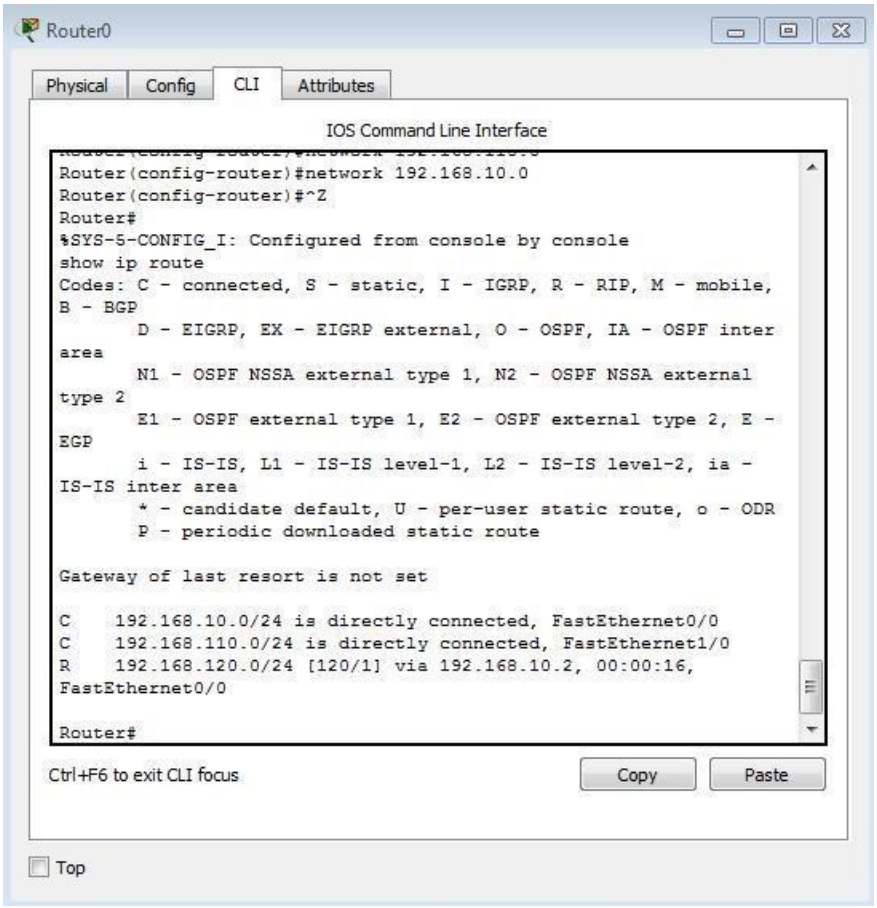


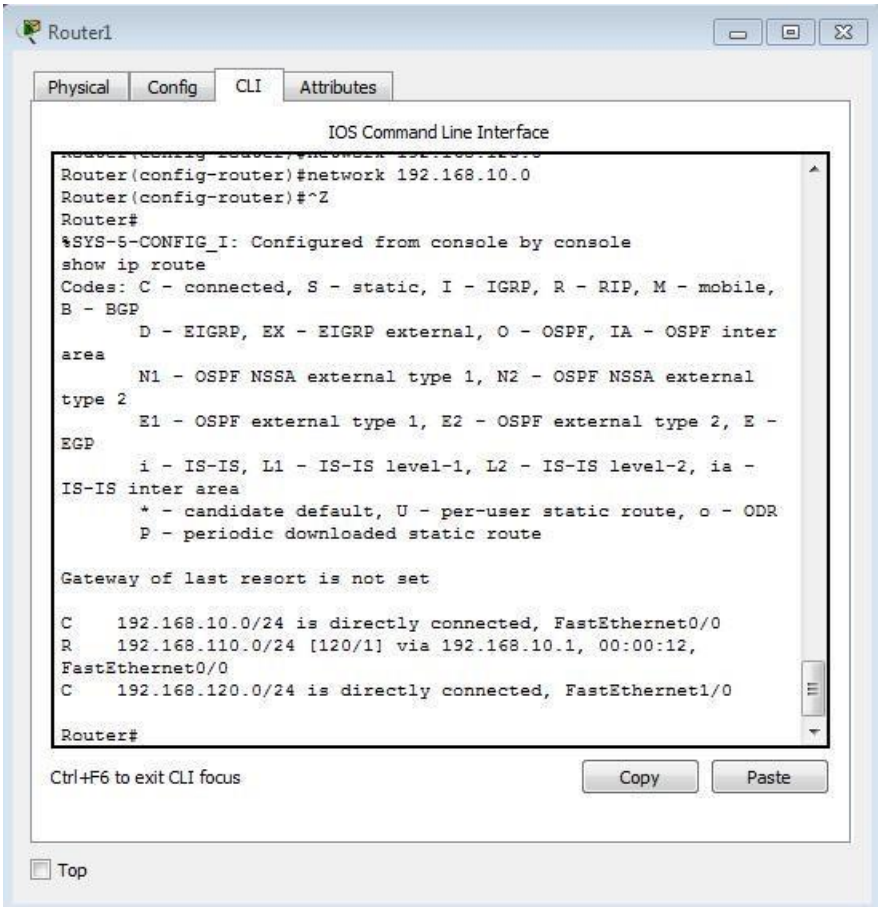
4. Melakukan routing dengan protocol RIP pada kedua jaringan



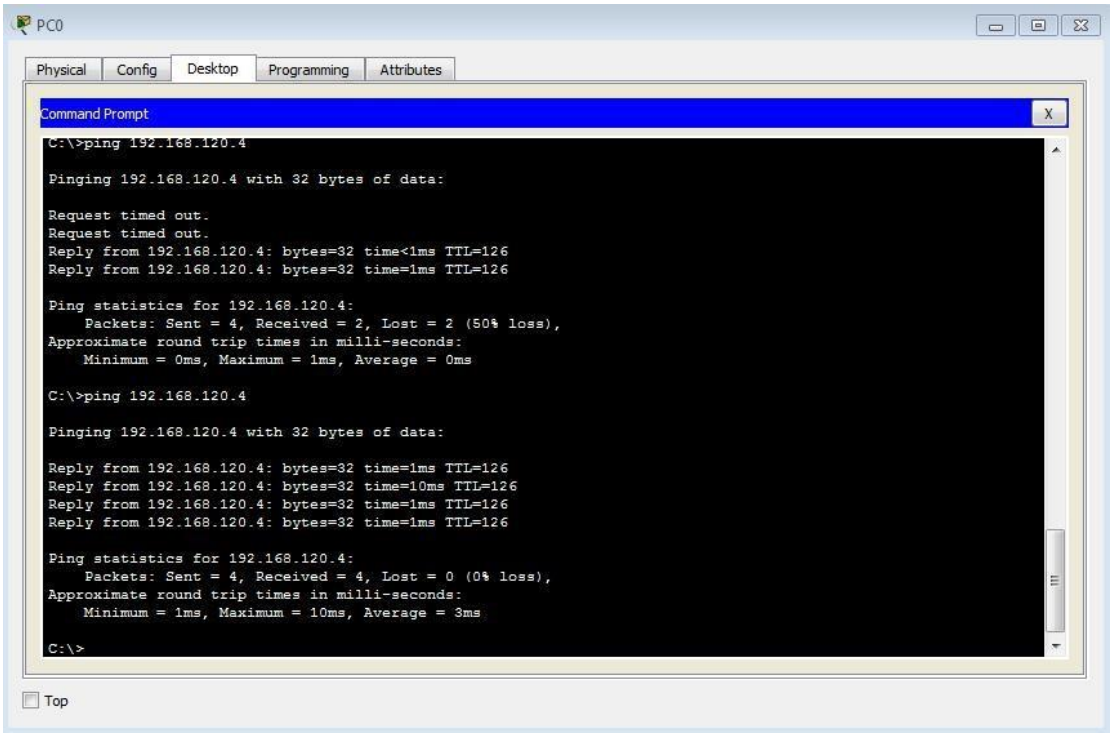


5. Lakukan pengecekan tabel routing pada kedua router tersebut dengan perintah [show ip route]


Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router(config-router)#network 192.168.10.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile,
B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter
area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external
type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E -
EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia -
IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
Gateway of last resort is not set
C 192.168.10.0/24 is directly connected, FastEthernet0/0
C 192.168.110.0/24 is directly connected, FastEthernet1/0
R 192.168.120.0/24 [120/1] via 192.168.10.2, 00:00:16,
FastEthernet0/0
Router#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Router1
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router(config-router)#network 192.168.10.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile,
B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter
area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external
type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E -
EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia -
IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route
Gateway of last resort is not set
C 192.168.10.0/24 is directly connected, FastEthernet0/0
R 192.168.110.0/24 [120/1] via 192.168.10.1, 00:00:12,
FastEthernet0/0
C 192.168.120.0/24 is directly connected, FastEthernet1/0
Router#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

6. Selanjutnya lakukan tes koneksi dari PC1 ke PC3 dengan menggunakan perintah “Ping (alamat ip yang dituju)”. kedua PC tersebut berada pada jaringan yang berbeda, jika koneksi berhasil maka routing berhasil



7. Kemudian kita coba lakukan filtering. Dengan memberikan hanya 1 host PC 4 dengan Alamat IP 192.168.120.4 agar dapat mengakses ke jaringan 192.168.110.0
Konfigurasi Pada Router 1

```
Router>en
Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#acc
Router(config)#access-list 20 permit 192.168.120.4 0.0.0.0
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa
Router(config)#int fastEthernet 0/0
Router(config-if)#acc
Router(config-if)#ip ac
Router(config-if)#ip access-group 20 out
Router(config-if)#
```

8. Kemudian coba PING dari PC 3 ke PC 1/ PC 2. Maka hasilnya akan Destination Host Unreachable. Sedangkan Dari PC 4 ke PC 1/PC 2 Pasti akan Reply Karena di perbolehkan oleh router 1.

   a. PC 3 Ke PC 1

```
C:\>ping 192.168.110.3

Pinging 192.168.110.3 with 32 bytes of data:

Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.
Reply from 192.168.10.1: Destination host unreachable.

Ping statistics for 192.168.110.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

   b. PC 4 ke PC 1

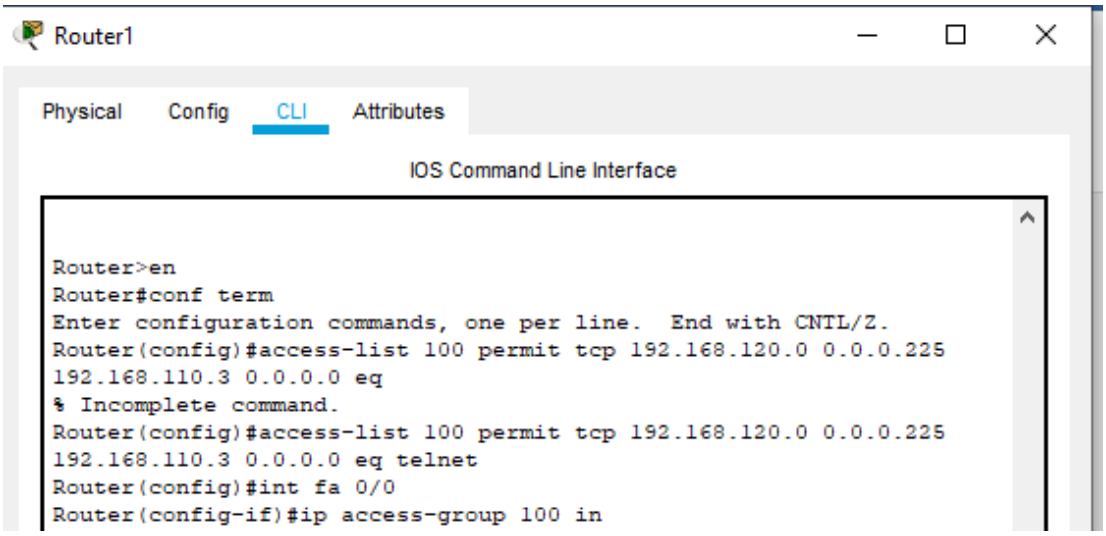
```
C:\>ping 192.168.110.3

Pinging 192.168.110.3 with 32 bytes of data:

Reply from 192.168.110.3: bytes=32 time=10ms TTL=126
Reply from 192.168.110.3: bytes=32 time=13ms TTL=126
Reply from 192.168.110.3: bytes=32 time=13ms TTL=126
Reply from 192.168.110.3: bytes=32 time=13ms TTL=126

Ping statistics for 192.168.110.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 10ms, Maximum = 13ms, Average = 12ms
```

KESIMPULAN

Pada Router, dapat dilakukan Dynamic Routing yaitu Routing secara dinamis yang dilakukan oleh router dimana router dapat memilih jalur yang terdekat ketika mengirimkan data ke tujuan. Dan pada Router dapat dilakukan Filtering Access yaitu konfigurasi IP mana saja yang mendapatkan akses ke jaringan ataupun yang tidak.

Kegiatan 2. Kegiatan Extended Access List

1. Konfigurasi mengizinkan paket telnet dari semua host yang ada di jaringan 192.168.120 ke host 192.168.110.3



2. Melihat hasil konfigurasi