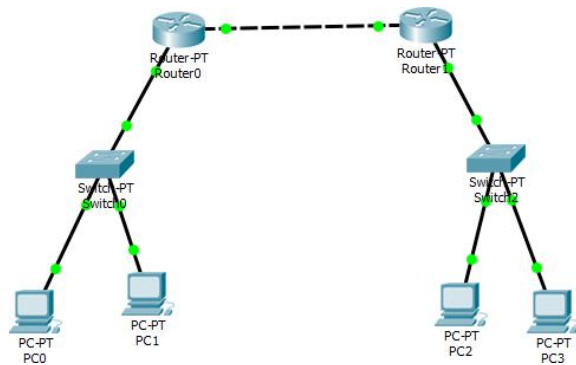


Nama : Zulfa Fajrul Falah  
Nim : L200170149  
Kelas : D

## Laporan Praktikum Jaringan Komputer Modul 8

### Kegiatan1. Konfigurasi Access List

1. Membuat desain topologi jaringan dengan 2 router, 2 switch, 4 pc.



2. Memberikan IP address pada setiap router, switch dan pc.

Dengan ketentuan :

- ⌘ Router0 :
  - o E0 : 192.168.10/24
  - o E1 : 192.168.110.254/24
- ⌘ Router1 :
  - o E0 : 192.168.10.2/24
  - o E1 : 192.168.120.254/24
- ⌘ Switch0 : 192.168.110.250/24
- ⌘ Switch1 : 192.168.120.250/24
- ⌘ Pc0 : 192.168.110.3/24
- ⌘ Pc1 : 192.168.110.4/24
- ⌘ Pc2 : 192.168.120.3/24
- ⌘ Pc3 : 192.168.120.4/24
- ⌘ Memberikan IP Address untuk setiap router, masing-masing di fa0/0 dan fa1/0 sesuai dengan dimodul. Berikut contoh pada fa0/0 diRouter0.

Router0

Physical Config CLI Attributes

**GLOBAL**

Settings

Algorithm Settings

**ROUTING**

Static

RIP

**INTERFACE**

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00E0.A354.1186

IP Configuration

IP Address 192.168.10.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

☞ Memberikan IP Address untuk setiap PC.

PC0

Physical Config Desktop Programming Attributes

**IP Configuration**

IP Configuration

☐ DHCP ☒ Static

IP Address 192.168.110.3

Subnet Mask 255.255.255.0

Default Gateway 192.168.110.254

DNS Server 0.0.0.0

**IPv6 Configuration**

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80::260:5CFF:FE9E:5191

IPv6 Gateway

IPv6 DNS Server

PC1

Physical Config Desktop Programming Attributes

IP Configuration

☐ DHCP ☒ Static

IP Address: 192.168.110.4

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.110.254

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::201:43FF:FE84:2A10

IPv6 Gateway:

IPv6 DNS Server:

PC2

Physical Config Desktop Programming Attributes

IP Configuration

☐ DHCP ☒ Static

IP Address: 192.168.120.3

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.120.254

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::2E0:F7FF:FE08:881

IPv6 Gateway:

IPv6 DNS Server:

PC3

Physical Config Desktop Programming Attributes

IP Configuration

☐ DHCP ☒ Static

IP Address: 192.168.120.4

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.120.254

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

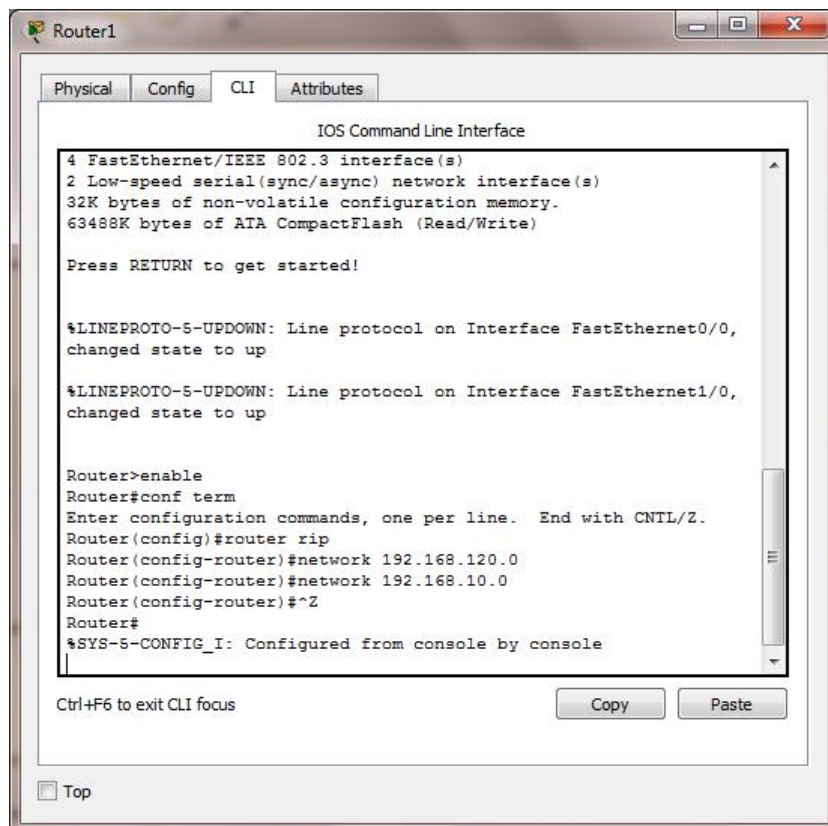
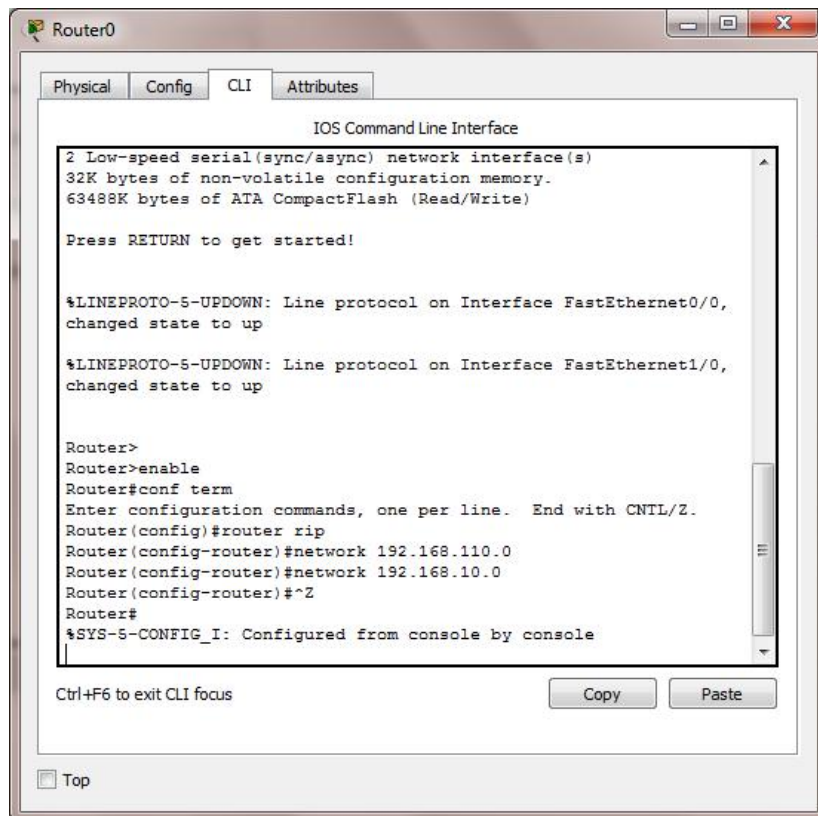
IPv6 Address: /

Link Local Address: FE80::202:4AFF:FE87:6436

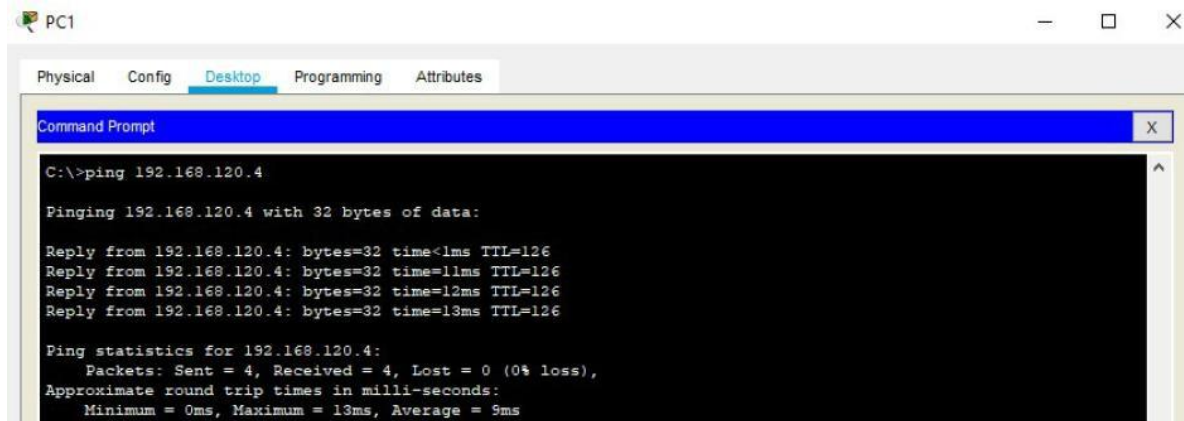
IPv6 Gateway:

IPv6 DNS Server:

3. Melakukan routing dengan protocol RIP pada kedua jaringan



- 8 Untuk mengetest routing berhasil, ping PC1 ke PC4



The screenshot shows a window titled 'PC1' with tabs for Physical, Config, Desktop, Programming, and Attributes. The 'Desktop' tab is active, displaying a 'Command Prompt' window. The command prompt shows the execution of the command 'C:\>ping 192.168.120.4'. The output indicates a successful ping with 4 packets sent and received, 0% loss, and an average round trip time of 9ms.

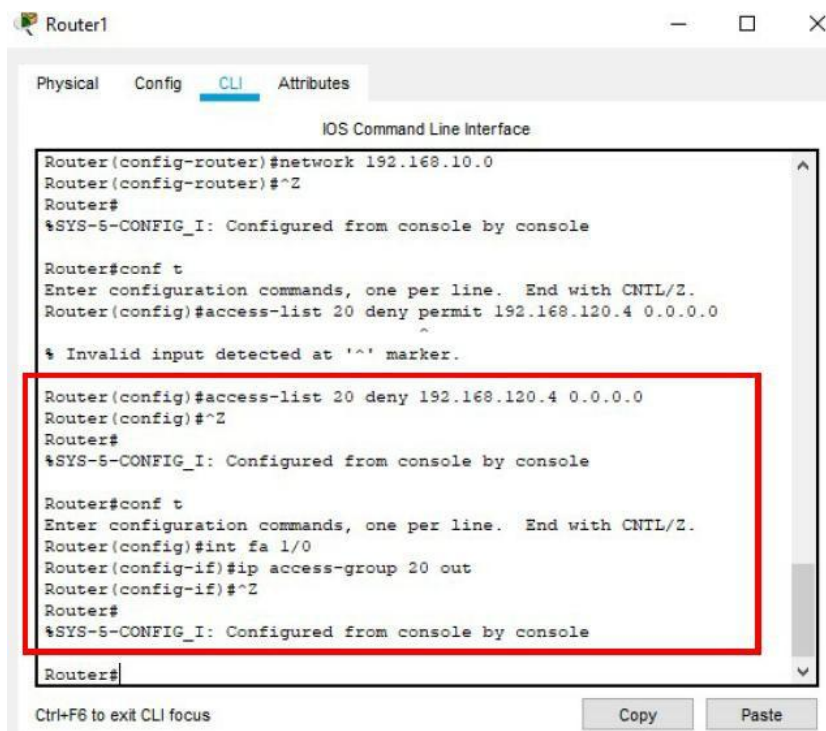
```
C:\>ping 192.168.120.4

Pinging 192.168.120.4 with 32 bytes of data:

Reply from 192.168.120.4: bytes=32 time<1ms TTL=126
Reply from 192.168.120.4: bytes=32 time=11ms TTL=126
Reply from 192.168.120.4: bytes=32 time=12ms TTL=126
Reply from 192.168.120.4: bytes=32 time=13ms TTL=126

Ping statistics for 192.168.120.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 13ms, Average = 9ms
```

#### 4. Cara memblokir akses.



The screenshot shows a window titled 'Router1' with tabs for Physical, Config, CLI, and Attributes. The 'CLI' tab is active, displaying the 'IOS Command Line Interface'. The configuration commands are entered as follows:

```
Router(config-router)#network 192.168.10.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#access-list 20 deny permit 192.168.120.4 0.0.0.0
% Invalid input detected at '^' marker.

Router(config)#access-list 20 deny 192.168.120.4 0.0.0.0
Router(config)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa 1/0
Router(config-if)#ip access-group 20 out
Router(config-if)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

The configuration steps are highlighted with a red box. The final configuration includes an access list 20 that denies traffic from 192.168.120.4 and applies it to interface fa 1/0 in the out direction.

#### 5. Teskoneksi dari PC3 ke PC1 dan PC2

```
PC3
Physical Config Desktop Programming Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
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),

C:\>ping 192.168.110.4

Pinging 192.168.110.4 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 192.168.110.4:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

Destination host unreachable menunjukkan bahwa akses dari PC3 ke PC1 maupun PC2 sudah terblokir.

• Tes koneksi dari PC4 ke PC1 dan PC2

```
PC4
Physical Config Desktop Programming Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
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),

C:\>ping 192.168.110.4

Pinging 192.168.110.4 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.

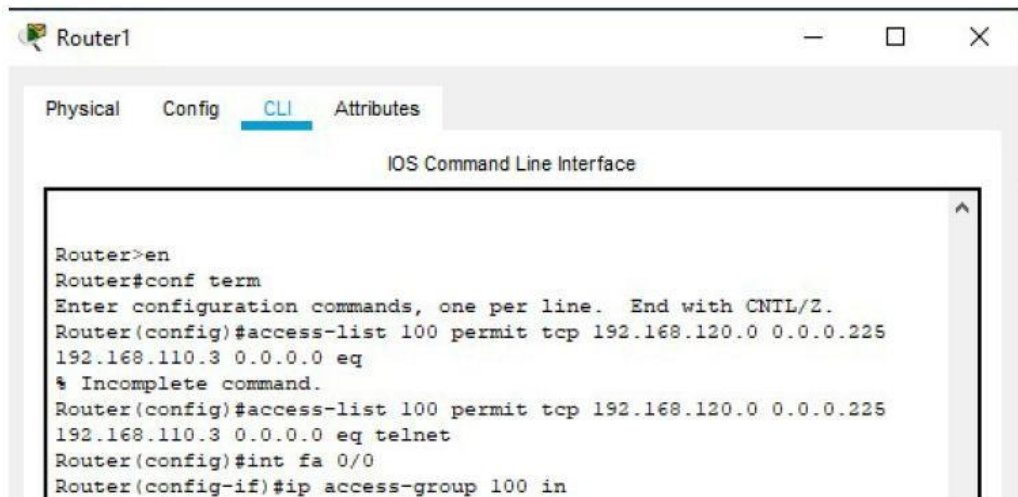
Ping statistics for 192.168.110.4:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

Destination host unreachable menunjukkan bahwa akses dari PC4 ke PC1 maupun PC2 sudah terblokir.

## Kegiatan2. Kegiatan Extended Access List

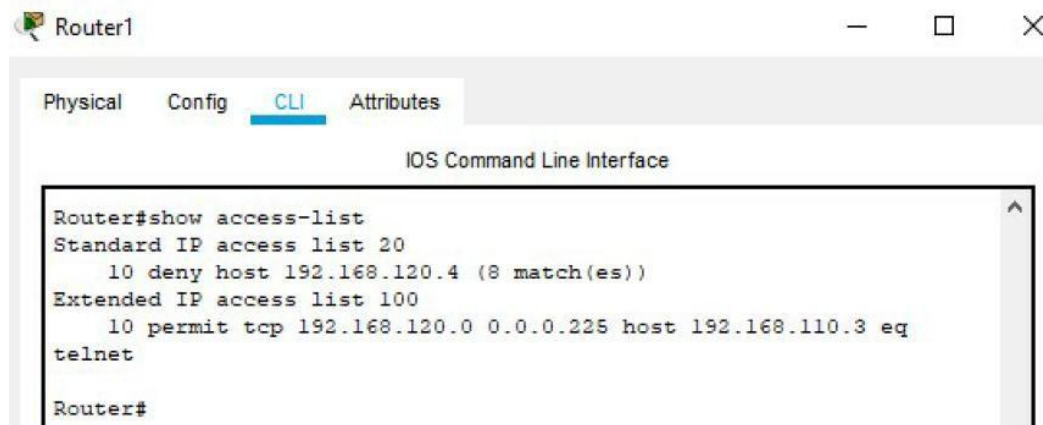
1. Konfigurasi mengizinkan paket telnet dari semua host yang ada di jaringan 192.168.120 ke host 192.168.110.3



The screenshot shows the CLI of Router1. The user enters 'en' to enter enable mode, then 'conf term' to enter configuration mode. They create an extended access list 100 to permit TCP traffic from 192.168.120.0/24 to 192.168.110.3 on port 225. They then apply this access list to interface fa 0/0.

```
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#access-list 100 permit tcp 192.168.120.0 0.0.0.225
192.168.110.3 0.0.0.0 eq
% Incomplete command.
Router(config)#access-list 100 permit tcp 192.168.120.0 0.0.0.225
192.168.110.3 0.0.0.0 eq telnet
Router(config)#int fa 0/0
Router(config-if)#ip access-group 100 in
```

2. Melihat hasil konfigurasi.



The screenshot shows the CLI of Router1. The user enters 'show access-list' to display the current access list configuration. The output shows a standard IP access list 20 denying traffic from 192.168.120.4 and an extended IP access list 100 permitting TCP traffic from 192.168.120.0/24 to 192.168.110.3 on port 225 for telnet.

```
Router#show access-list
Standard IP access list 20
 10 deny host 192.168.120.4 (8 match(es))
Extended IP access list 100
 10 permit tcp 192.168.120.0 0.0.0.225 host 192.168.110.3 eq
telnet
Router#
```