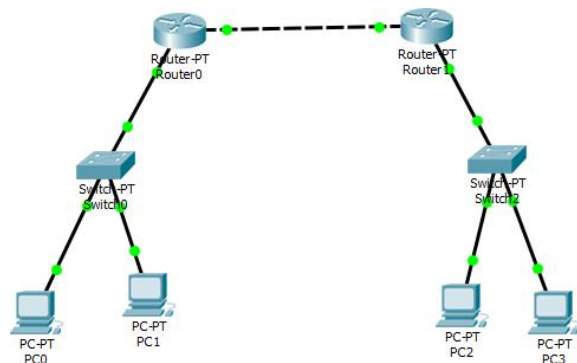


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## Kegiatan Praktikum Jaringan Komputer Modul 8

### Kegiatan1. Konfigurasi Access List

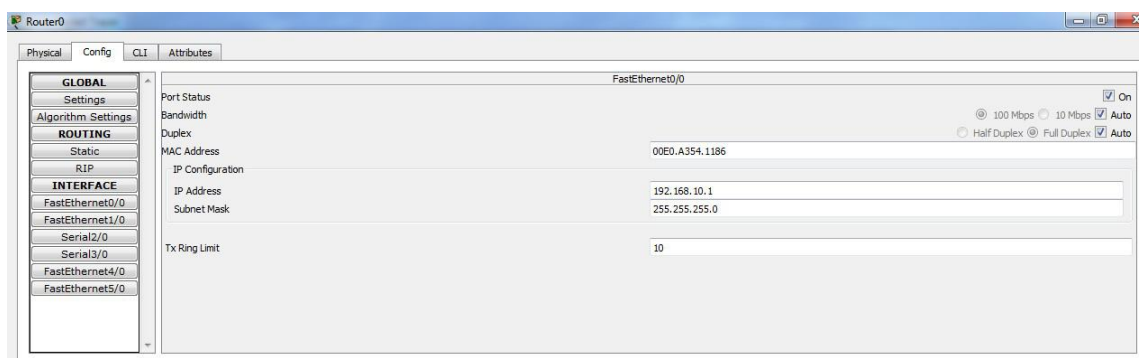
1. Membuat desain topologi jaringan dengan 2 router, 2 switch, 4 pc.



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 di Router0.



- Memberikan IP Address untuk setiap PC.

The screenshot shows a configuration window for a device labeled 'PC0'. The window has tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes', with 'Config' currently selected. The 'IP Configuration' section is active, displaying settings for both IPv4 and IPv6.

**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:FEB4:2A10

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:F7F: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

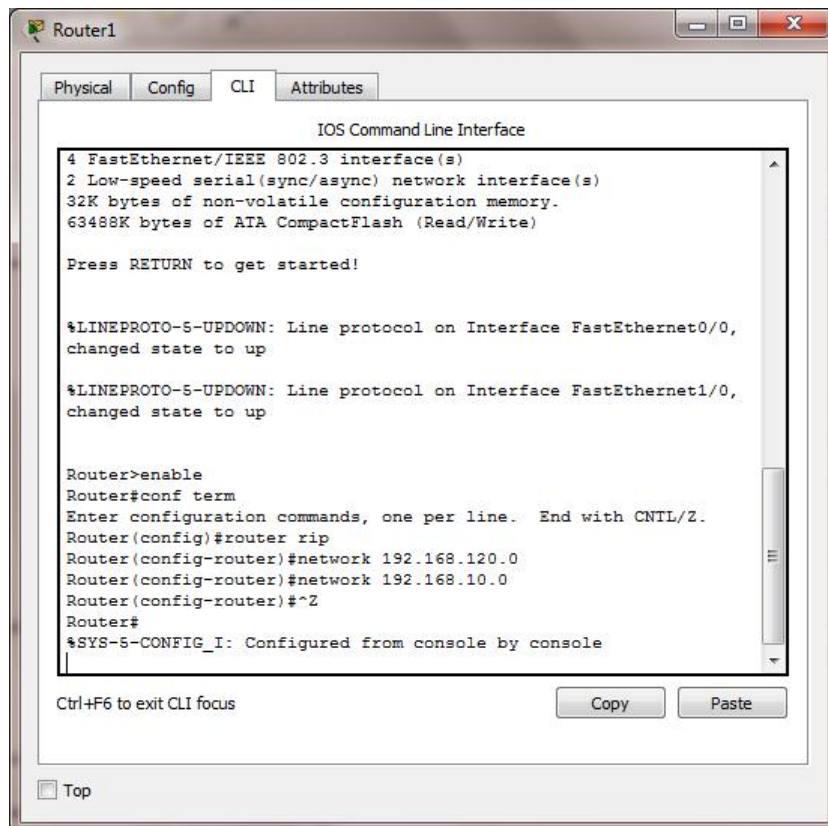
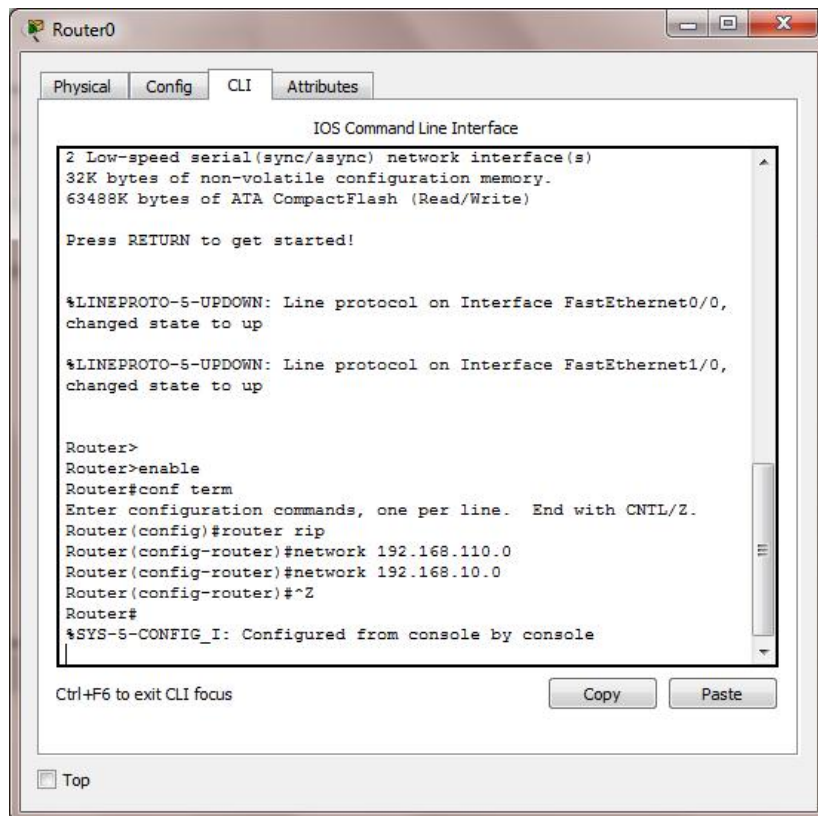
IPv6 Address: /

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

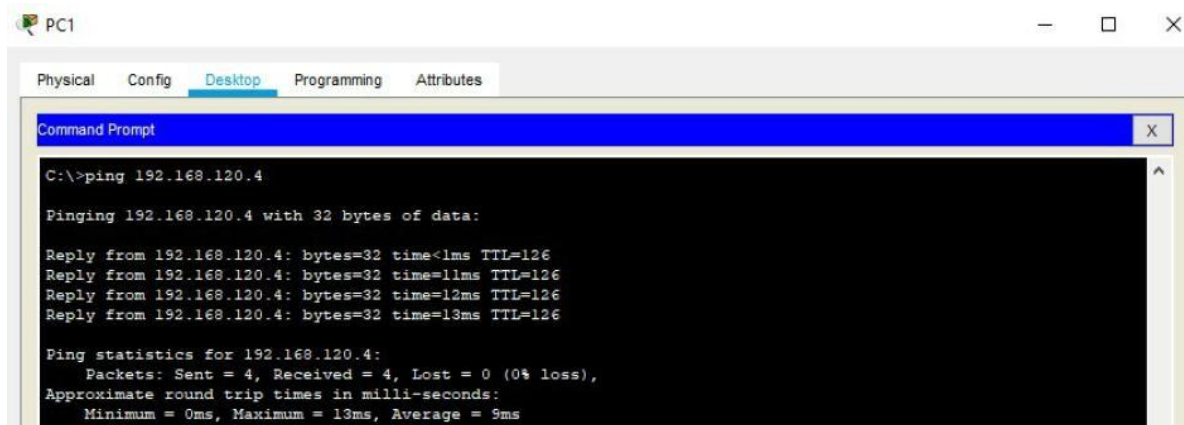
IPv6 Gateway:

IPv6 DNS Server:

3. Melakukan routing dengan protocol RIP pada kedua jaringan



- Untuk mengetest routing berhasil, ping PC1 ke PC4



The screenshot shows a Windows PC window titled 'PC1' with a 'Command Prompt' application open. The command prompt displays the command 'C:\>ping 192.168.120.4'. The output shows four successful replies from 192.168.120.4 with varying times (1ms, 11ms, 12ms, 13ms) and a TTL of 126. The ping statistics indicate 4 packets sent, 4 received, and 0% loss, with an average round trip time of 9ms.

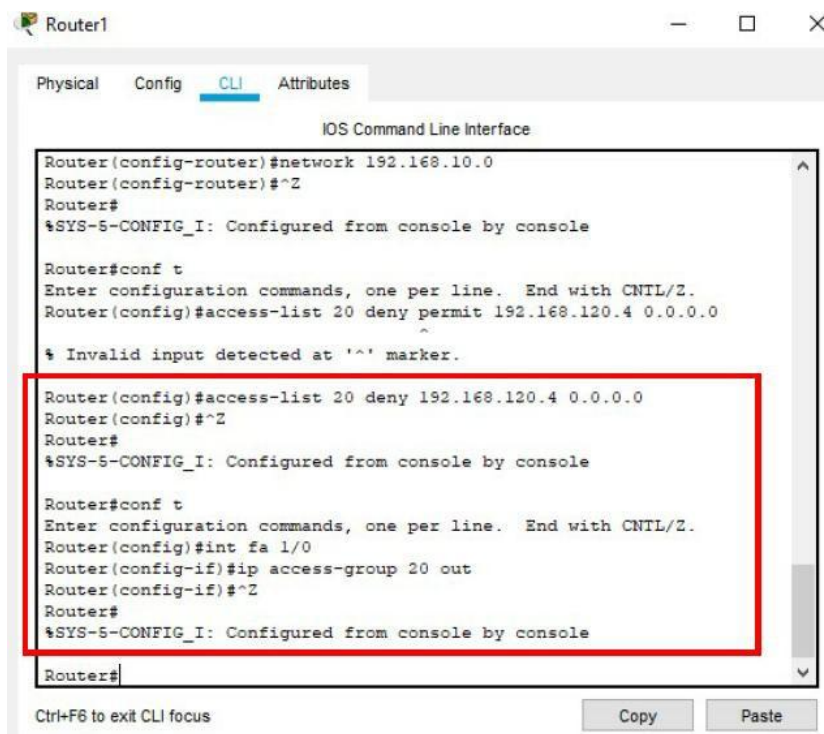
```
C:\>ping 192.168.120.4

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 Cisco Router window titled 'Router1' with the 'CLI' (Command Line Interface) tab selected. The CLI shows the configuration of an access list 20 to deny traffic from 192.168.120.4. The configuration is highlighted with a red box. The commands entered are: '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', and 'Router#'. The CLI also shows 'Ctrl+F6 to exit CLI focus' and 'Copy' and 'Paste' buttons.

```
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#
```

#### 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.

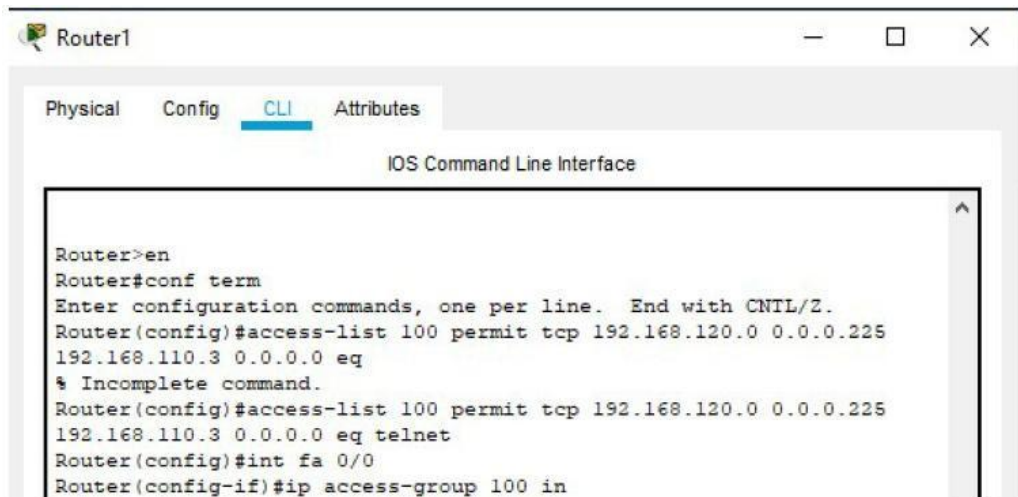
Ping statistics for 192.168.110.4:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

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

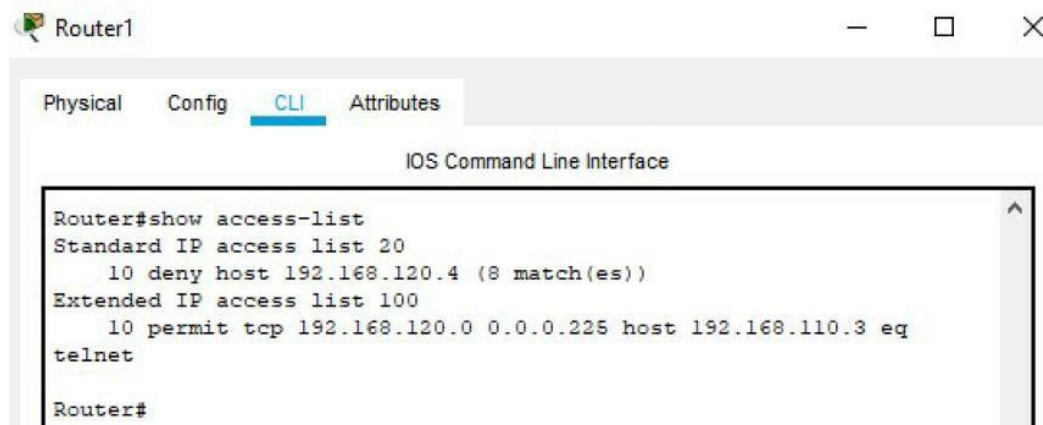
## Kegiatan2. Kegiatan Extended Access List

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

A screenshot of a network simulator window titled 'Router1'. It shows the 'CLI' tab of the 'IOS Command Line Interface'. The user has entered several commands to configure an extended access list. The output shows an incomplete command being corrected.

```
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.

A screenshot of the same 'Router1' window, showing the 'CLI' tab. The user has entered the 'show access-list' command, and the output displays the configured access lists.

```
Router#show access-list
Standard IP access list 20
  10 deny host 192.168.120.4 (0 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#
```