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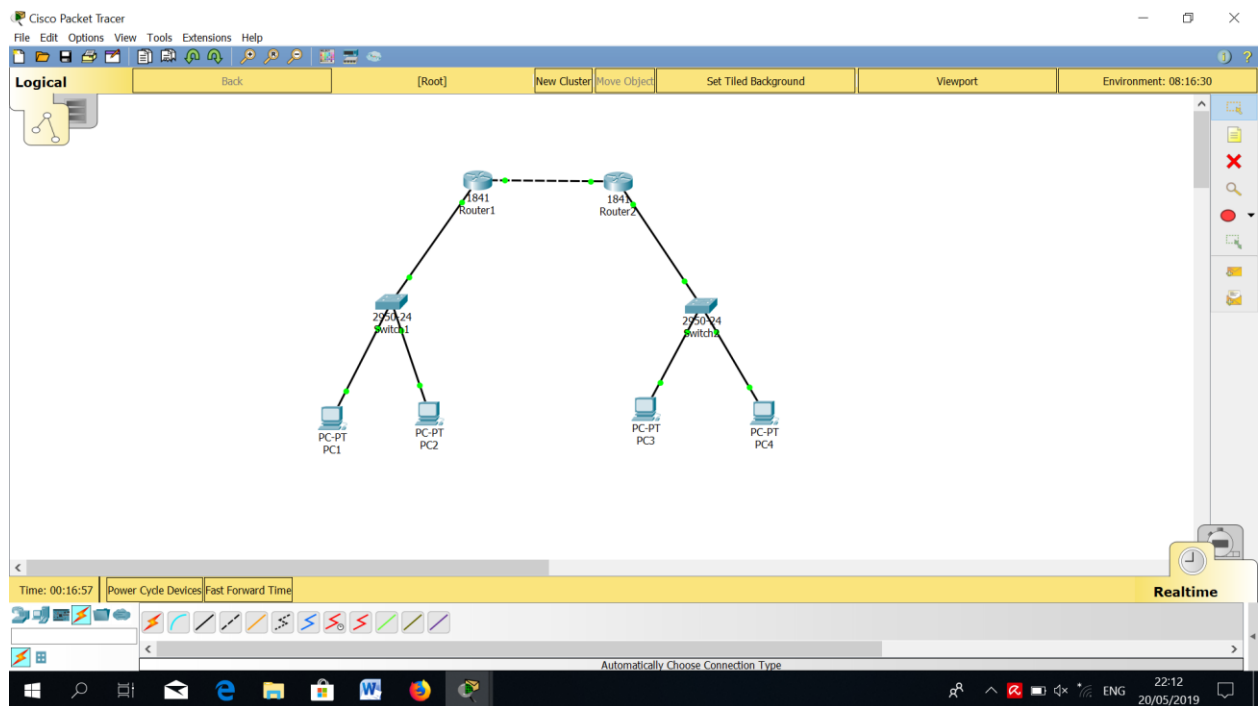
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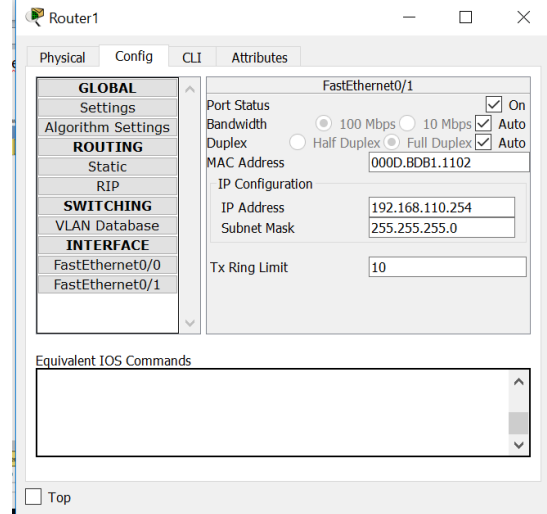
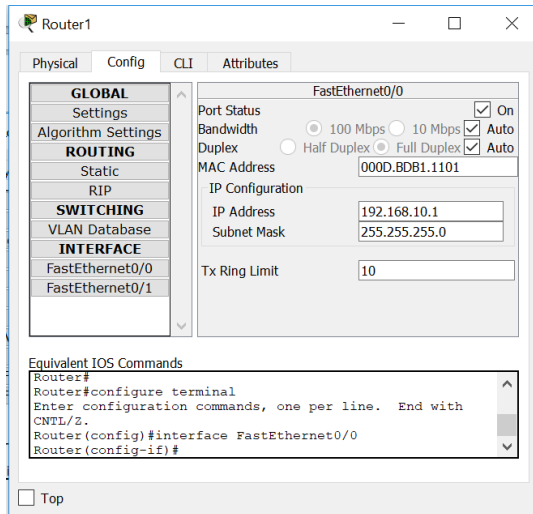
MODUL 8

Kegiatan 1. Konfigurasi Access List

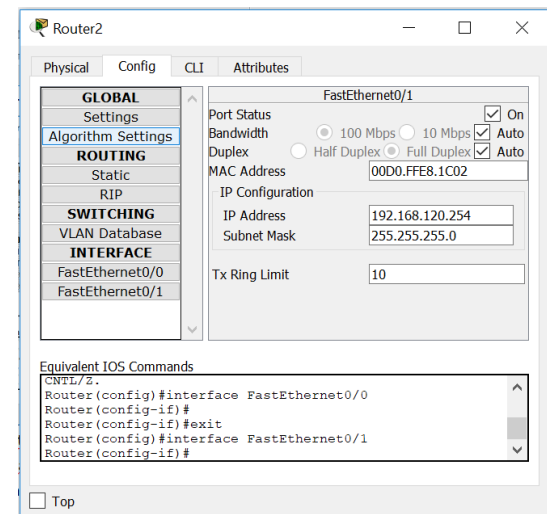
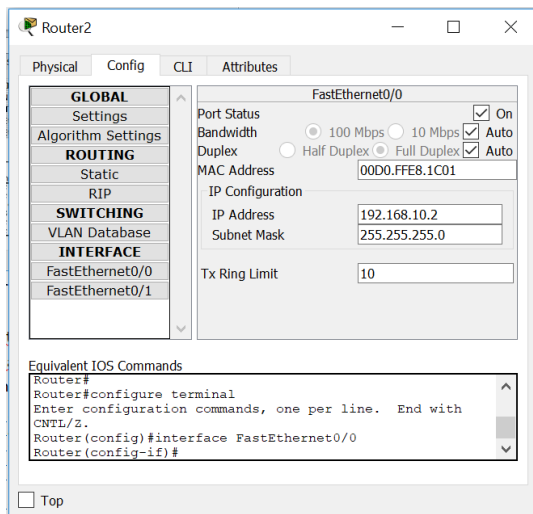
1. desain jaringan
2. berikan identitas untuk semua sumber daya (router, switch, dan komputer) yang telah anda desain tersebut.



- router 1



- router 2



3. khusus untuk [switch 1] dan [switch 2] berikan alamat ip untuk digunakan sebagai default gateway bagi semua komputer.

- Switch 1

```
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int vlan 1
Switch(config-if)#ip address 192.168.110.250 255.255.255.0
Switch(config-if)#no shut

Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed
state to up

Switch(config-if)#exit
```

- Switch 2

```

Switch>en
Switch#conf term
Enter configuration commands, one per line. End with
CNTL/Z.
Switch(config)#int vlan 1
Switch(config-if)#ip address 192.168.120.250
255.255.255.0
Switch(config-if)#no shut

Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

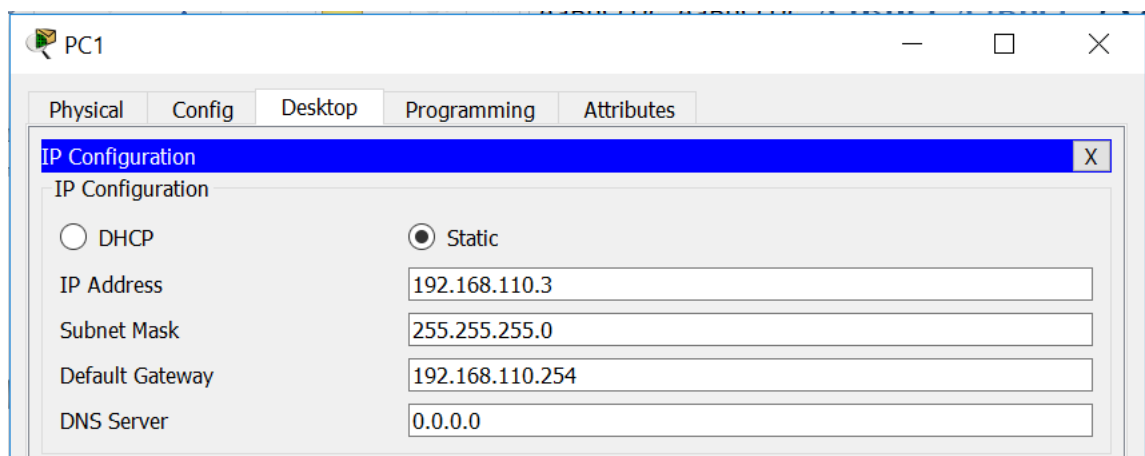
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1,
changed state to up

Switch(config-if)#exit

```

4. Berikutnya berikan alamat ip, subnet mask, dan default gateway pada masing- masing komputer.

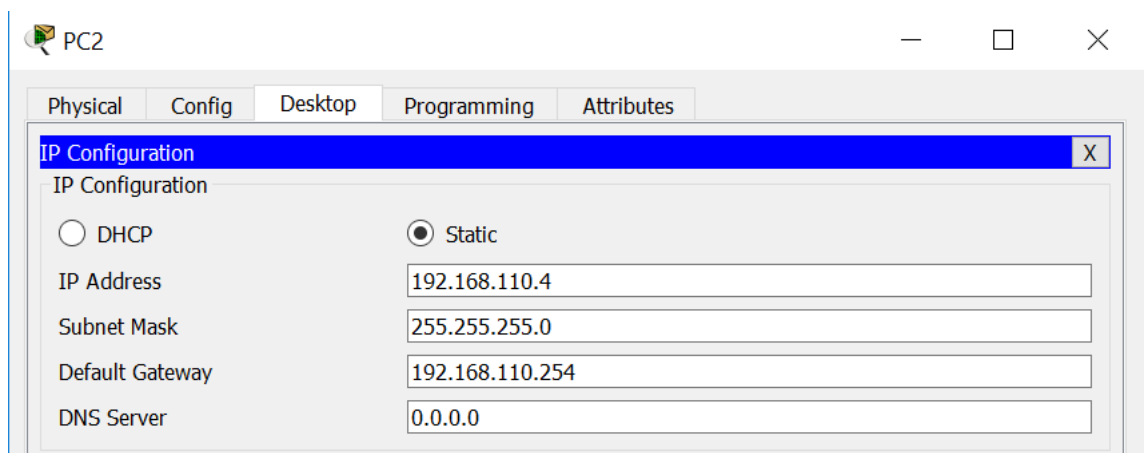
- Pc 1



The screenshot shows the 'IP Configuration' window for PC1. The 'Static' radio button is selected. The fields are filled with the following values:

Field	Value
IP Address	192.168.110.3
Subnet Mask	255.255.255.0
Default Gateway	192.168.110.254
DNS Server	0.0.0.0

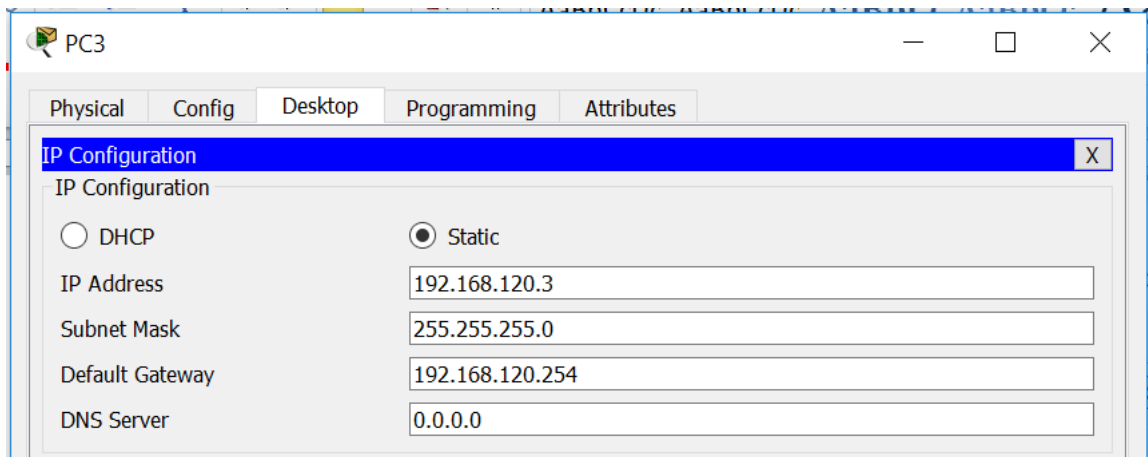
- Pc 2



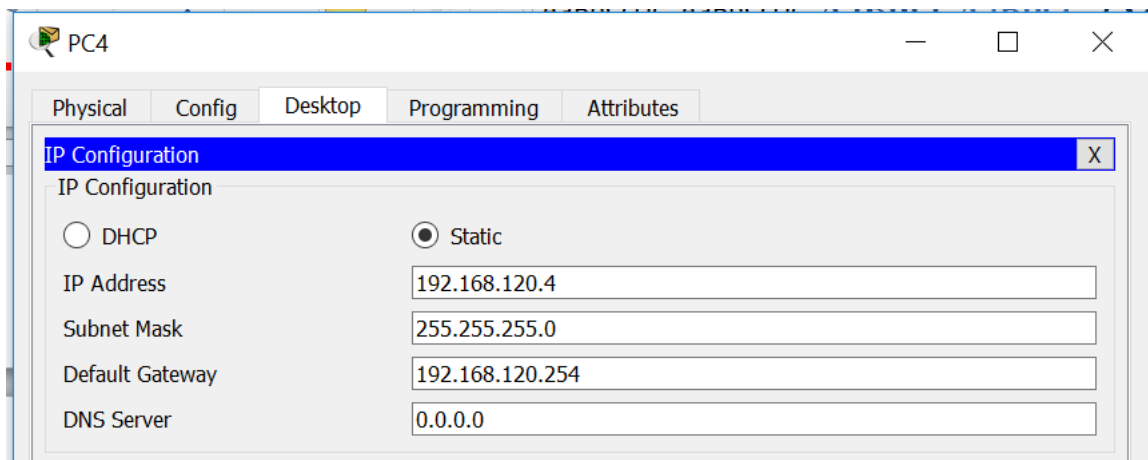
The screenshot shows the 'IP Configuration' window for PC2. The 'Static' radio button is selected. The fields are filled with the following values:

Field	Value
IP Address	192.168.110.4
Subnet Mask	255.255.255.0
Default Gateway	192.168.110.254
DNS Server	0.0.0.0

- Pc 3



- PC 4



5. Gunakan routing dengan protokol rip pada kedua jaringan tersebut.
6. Pada router 1 diberikan network ID 192.168.110.0 dan 192.168.10.0 untuk digunakan sebagai jalur routing, sedangkan pada router 2 diberikan network ID 192.168.120.0 dan 192.168.10.0 untuk digunakan sebagai jalur routing.

- Router 1

```
Router(config)#router rip
Router(config-router)#network 192.168.110.0
Router(config-router)#network 192.168.10.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

- Router 2

```
Router(config)#router rip
Router(config-router)#network 192.168.120.0
Router(config-router)#network 192.168.10.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

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

```

Router#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, 00:00:20,
FastEthernet0/0
C     192.168.120.0/24 is directly connected, FastEthernet0/1

```

8. Tes koneksi dari [pc 1] ke [pc 4] dengan menggunakan perintah [ping].

```

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=10ms 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 = 8ms

```

9. Tentukan access list yang akan diterapkan dalam jaringan tersebut. router 1 akan mengijinkan semua host dari jaringan 192.168.120.0 dapat mengakses jaringan 192.168.100.0.

```

Router(config)#access-list 10 permit 192.168.120.0
0.0.255.255
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

```

10. Trapkan access list tersebut ke interface [router 1] dalam hal ini interface [fa 0/1] yang mengarah ke jaringan 192.168.120.0

```

Router#conf term
Enter configuration commands, one per line. End with
CNTL/Z.
Router(config)#int fa0/1
Router(config-if)#ip access-group 10 out
Router(config-if)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console

```

11. Konfigurasi access list tersebut pada [router 1]

```

Router#show access-lists
Standard IP access list 10
    10 permit 192.168.0.0 0.0.255.255

```

12. Konfigurasi access list tersebut pada [fa0/1] dengan perintah [show running-config].


```
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#access-list 20 permit 192.168.120.4 0.0.0.0
Router(config)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

15. Terapkan access list 20 tersebut ke interface[fa0/1] pada [router 1].

```
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/1
Router(config-if)#ip access-group 20 out
Router(config-if)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

16. Tes koneksi dari [pc 4] yang berada pada jaringan 192.168.120.0 ke [pc 1] dan [pc 2] yang berada pada jaringan 192.168.110.0

- 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<1ms TTL=126
Reply from 192.168.110.3: bytes=32 time=10ms TTL=126
Reply from 192.168.110.3: bytes=32 time=20ms TTL=126
Reply from 192.168.110.3: bytes=32 time=14ms 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 = 0ms, Maximum = 20ms, Average = 11ms
```

- Pc 4 ke pc 2

```
C:\>ping 192.168.110.4

Pinging 192.168.110.4 with 32 bytes of data:

Reply from 192.168.110.4: bytes=32 time=1ms TTL=126
Reply from 192.168.110.4: bytes=32 time=13ms TTL=126
Reply from 192.168.110.4: bytes=32 time=12ms TTL=126
Reply from 192.168.110.4: bytes=32 time=3ms TTL=126

Ping statistics for 192.168.110.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 13ms, Average = 7ms
```

Kegiatan 2. Konfigurasi Extended Access List

Untuk mengkonfigurasi Extended access list sebenarnya tidak terlalu beda jauh dengan cara mengkonfigurasi Standard Access List. perintah yang digunakan ada penambahan informasi tentang paket yang diijinkan atau ditolak.

```
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 0.0.0.255
192.168.110.3 0.0.0.0 eq telnet
```

Pada contoh perintah diatas, kita mengijinkan (permit) paket telnet dari semua host yang ada di jaringan 192.168.120.0 ke host 192.168.110.3.

Angka[100] setelah perintah [access-list] merupakan pengenalan bagi Extended Access List. Cara menerapkan Access List tersebut ke interface router juga tidak berbeda dengan penerapan Standard Access List.

```
Router(config)#int fa0/0
Router(config-if)#ip access-group 100 in
Router(config-if)#
```