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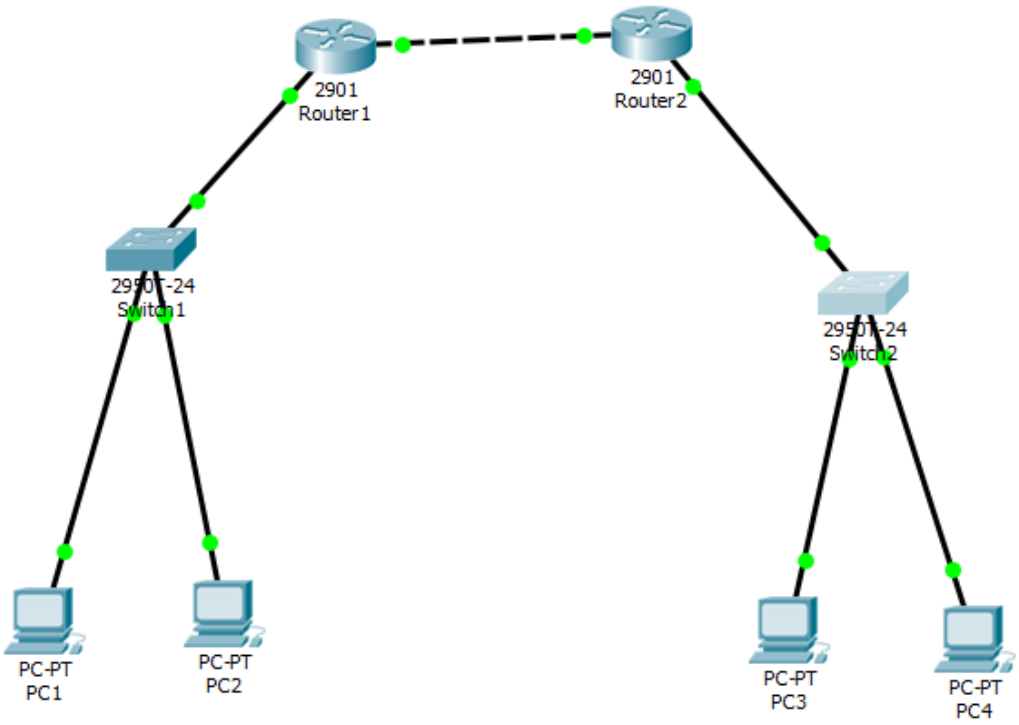
Laporan Praktikum

Modul 8

Kegiatan 1.

1. Konfigurasi Access List.



2. Mengatur konfigurasi alamat IP pada Router.
   a. Konfigurasi alamat IP pada Router 1.

```
Router(config-if)#int gig0/0
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to
up
```

```
Router>en
Router#config term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int gig0/1
Router(config-if)#ip address 192.168.110 254 255.255.255.0
                             ^
% Invalid input detected at '^' marker.

Router(config-if)#ip address 192.168.110.254 255.255.255.0
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to
up

%LINEPROTO-5-UPDOWN: Line protocol on Interface
GigabitEthernet0/1, changed state to up

Router(config-if)#
```

b. Konfigurasi alamat IP pada Router 2.

```
Router>en
Router#config term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int gog0/0
                  ^
% Invalid input detected at '^' marker.

Router(config)#int gig0/0
Router(config-if)#ip address 192.168.10.2 255.255.255.0
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to
up

%LINEPROTO-5-UPDOWN: Line protocol on Interface
GigabitEthernet0/0, changed state to up
```

```
Router(config-if)#int gig0/1
Router(config-if)#ip address 192.168.120.254 255.255.255.0
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to
up

%LINEPROTO-5-UPDOWN: Line protocol on Interface
GigabitEthernet0/1, changed state to up
```

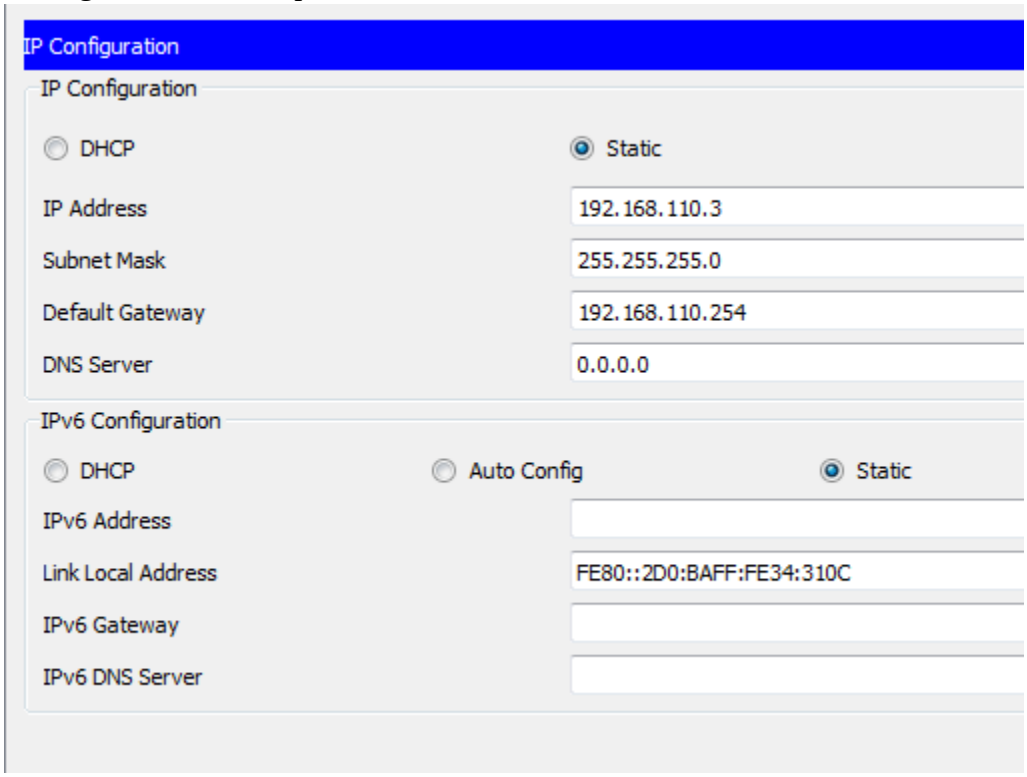
3. Mengatur konfigurasi alamat IP pada Switch.
   a. Konfigurasi alamat IP pada switch 1.

```
Switch>enable
Switch#con t
% Ambiguous command: "con t"
Switch#config 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(config)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to up
```

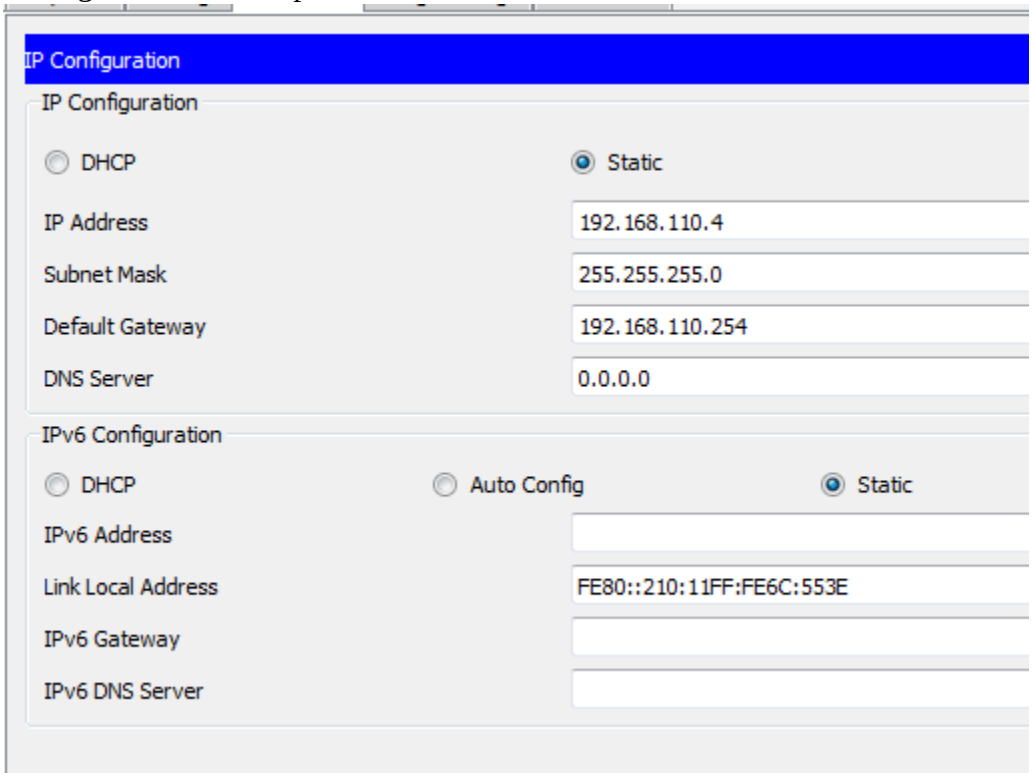
   b. Konfigurasi alamat IP pada switch 2.

```
Switch>enable
Switch#config 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 chut
                   ^
% Invalid input detected at '^' marker.

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(config)#
```

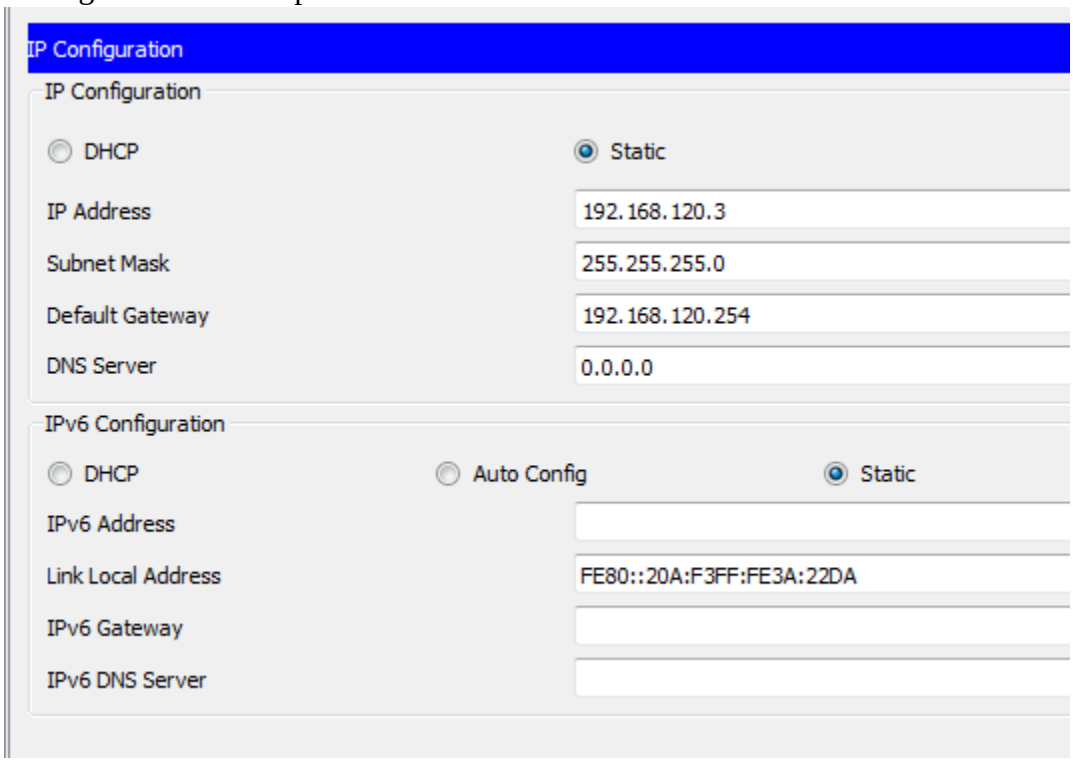
4. Mengatur konfigurasi alamat IP pada PC.
   a. Konfigurasi alamat IP pada PC 1.



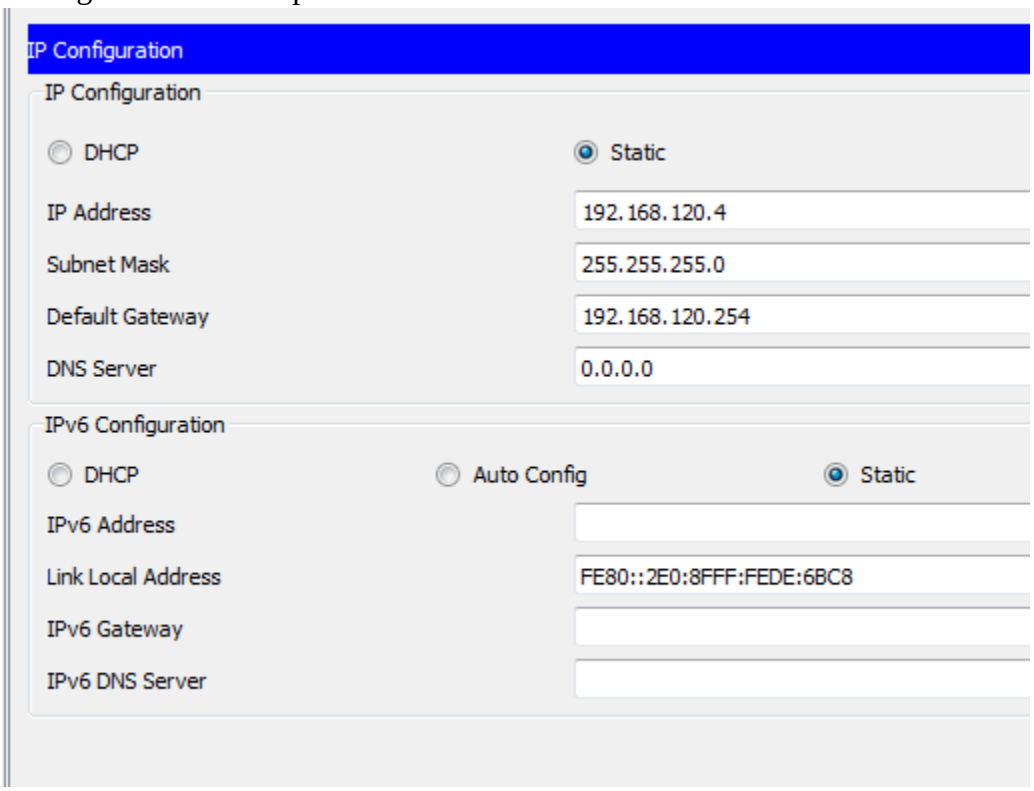
   b. Konfigurasi alamat IP pada PC 2.



c. Konfigurasi alamat IP pada PC 3.



d. Konfigurasi alamat IP pada PC 4.



5. Melakukan konfigurasi protocol RIP.
   a. Router 1.

```
Router>en
Router#config term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network 192.168.110.0
Router(config-router)#network 192.168.10.0
Router(config-router)#exit
Router(config)#
```

   b. Router 2.

```
Router>en
Router#config term
Enter configuration commands, one per line.  End with CNTL/Z.
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
```

6. Melakukan pengecekan tabel routing.
   a. Router 1.

```
Router#show ip route
Codes: L - local, C - connected, S - static, 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

     192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.10.0/24 is directly connected, GigabitEthernet0/0
L       192.168.10.1/32 is directly connected, GigabitEthernet0/0
     192.168.110.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.110.0/24 is directly connected,
GigabitEthernet0/1
L       192.168.110.254/32 is directly connected,
GigabitEthernet0/1
R    192.168.120.0/24 [120/1] via 192.168.10.2, 00:00:00,
GigabitEthernet0/0
```

b. Router 2.

```
Router#show ip route
Codes: L - local, C - connected, S - static, 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

     192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.10.0/24 is directly connected, GigabitEthernet0/0
L       192.168.10.2/32 is directly connected, GigabitEthernet0/0
R    192.168.110.0/24 [120/1] via 192.168.10.1, 00:00:13,
GigabitEthernet0/0
     192.168.120.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.120.0/24 is directly connected,
GigabitEthernet0/1
L       192.168.120.254/32 is directly connected,
GigabitEthernet0/1
```

7. Melakukan tes koneksi dari PC 1 ke PC 4.

```
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=1ms TTL=126
Reply from 192.168.120.4: bytes=32 time<1ms TTL=126
Reply from 192.168.120.4: bytes=32 time<1ms 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 = 1ms, Average = 0ms

C:\>
```

8. Access List 192.168.120 ke 192.168.110 pada Router 1.

```
Router#config term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#access-list 10 permit 192.168.120.0 255.255.255.0
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

9. Access List 10 untuk interface e1.

```
Router(config)#int gig0/0
Router(config-if)#ip access-group 10 out
Router(config-if)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

10. Melihat konfigurasi Access List pada Router 1.

```
Router#show access-lists
Standard IP access list 10
    10 permit 0.0.0.0 255.255.255.0
```

11. Konfigurasi Access List pada Ethernet 1.

```
interface GigabitEthernet0/0
 ip address 192.168.10.1 255.255.255.0
 ip access-group 10 out
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 ip address 192.168.110.254 255.255.255.0
 duplex auto
 speed auto
!
interface Vlan1
 no ip address
 shutdown
!
router rip
 network 192.168.10.0
 network 192.168.110.0
!
ip classless
!
ip flow-export version 9
!
!
access-list 10 permit 0.0.0.0 255.255.255.0
!
```

12. Melakukan tes koneksi dari PC 3 ke PC 1.

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.110.3

Pinging 192.168.110.3 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

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

C:\>
```

Antara PC 3 dan PC 1 tidak bisa melakukan koneksi.

13. Memberika akses hanya kepada PC 4.

```
Router>en
Router#config 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)#
Router(config)#int gig0/0
Router(config-if)#ip access-group 20 out
Router(config-if)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

14. Melakukan tes koneksi antara PC 3 terhadap PC 1 dan PC 2.

```
C:\>ping 192.168.110.3

Pinging 192.168.110.3 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

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:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

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

Tidak dapat melakukan koneksi dikarenakan jalur koneksi yang diizinkan hanya terdapat pada PC 4.

15. Melakukan tes koneksi antara PC 4 terhadap PC 1 dan PC 2.

```
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=11ms TTL=126
Reply from 192.168.110.3: bytes=32 time=10ms TTL=126
Reply from 192.168.110.3: bytes=32 time<1ms 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 = 11ms, Average = 5ms

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=2ms TTL=126
Reply from 192.168.110.4: bytes=32 time=11ms TTL=126
Reply from 192.168.110.4: bytes=32 time<1ms TTL=126
Reply from 192.168.110.4: bytes=32 time=12ms 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 = 0ms, Maximum = 12ms, Average = 6ms
```

Koneksi berhasil karena PC 4 diberikan hak akses terhadap PC 1 dan PC 2.

Kegiatan 2.

Konfigurasi Extended Access List

```
Router>en
Router#config term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#no 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

Router#config term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#access-list 100 permit tcp 192.168.120.0
255.255.255.0 192.168.110.3 0.0.0.0 eq telnet
Router(config)#
Router(config)#int gig0/0
Router(config-if)#ip access-group 100 in
Router(config-if)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```