COMPUTER NETWORKS PRACTICUM
PRACTICUM 8
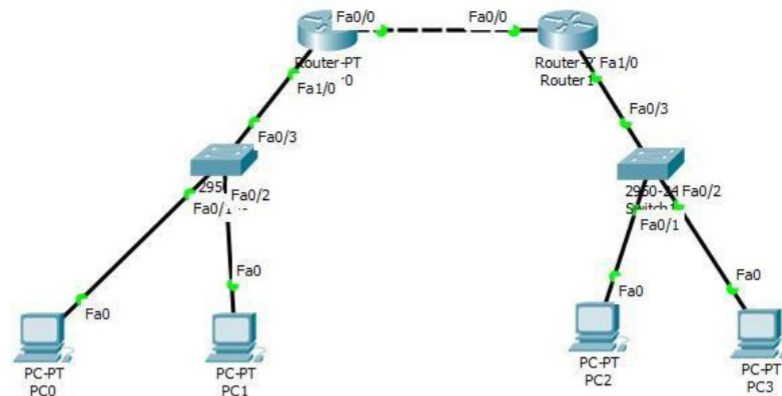

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OF MUHAMMADIYAH SURAKARTA 2020

1. Activity 1

Device 1 (Desktop)

Physical | Config | Desktop | Programming | Attributes

- ○ 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::230:A3FF:FE79:A74C
- IPv6 Gateway:
- IPv6 DNS Server:

802.1X
- ☐ Use 802.1X Security
- Authentication: MD5
- Username

Device 2 (Desktop)

Physical | Config | Desktop | Programming | Attributes

- ○ 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::202:17FF:FEB8:71B7
- IPv6 Gateway:
- IPv6 DNS Server:

802.1X
- ☐ Use 802.1X Security
- Authentication: MD5
- Username
- Password

Device 3 (Desktop)

Physical | Config | Desktop | Programming | Attributes

- ○ 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::200:CFF:FEB9:7A9B
- IPv6 Gateway:
- IPv6 DNS Server:

802.1X
- ☐ Use 802.1X Security
- Authentication: MD5
- Username
- Password

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Device 4 (Desktop)

Physical | Config | Desktop | Programming | Attributes

- ○ 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::200:CFF:FE9C:8510
- IPv6 Gateway:
- IPv6 DNS Server:

802.1X
- ☐ Use 802.1X Security
- Authentication: MD5
- Username

```
Router>enable
Router#conf
Configuring from terminal, memory, or network [terminal]?
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)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router>enable
Router#conf
Configuring from terminal, memory, or network [terminal]?
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
```

```
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, 00:00:23,
FastEthernet0/0
C    192.168.120.0/24 is directly connected, FastEthernet1/0
```

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.120.4

Pinging 192.168.120.4 with 32 bytes of data:

Request timed out.
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 = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

```
Router>enable
Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#access-list 10 permit 192.168.120.0 0.0.255.255
Router(config)#end
```

```
Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa 1/0
Router(config-if)#ip access-group 10 out
Router(config-if)#^Z
```

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

```
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=1ms TTL=126
Reply from 192.168.110.3: bytes=32 time<1ms 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 = 1ms, Average = 0ms

C:\>
```

```
Router#conf
Configuring from terminal, memory, or network [terminal]?
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

Router#conf
Configuring from terminal, memory, or network [terminal]?
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
```

```
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:\>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=1ms TTL=126
Reply from 192.168.110.3: bytes=32 time<1ms 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 = 1ms, Average = 0ms

C:\>ping 192.168.110.4

Pinging 192.168.110.4 with 32 bytes of data:

Request timed out.
Reply from 192.168.110.4: bytes=32 time<1ms TTL=126
Reply from 192.168.110.4: bytes=32 time=1ms TTL=126
Reply from 192.168.110.4: bytes=32 time<1ms TTL=126

Ping statistics for 192.168.110.4:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
```
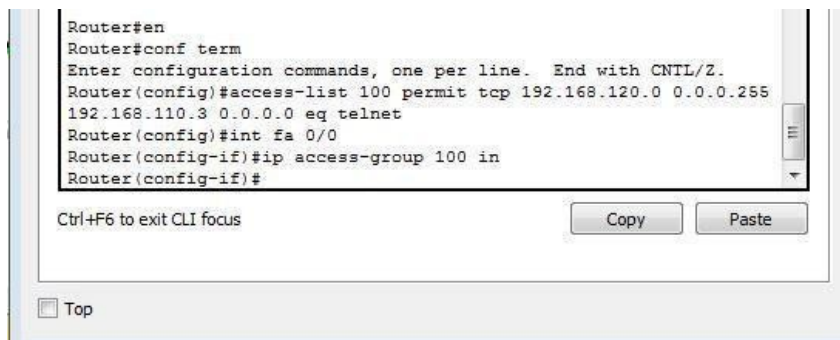
2. Activity 2

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

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```
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:\>
```

```
Router(config-if)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
show access-lists
Standard IP access list 10
    10 permit 192.168.0.0 0.0.255.255 (4 match(es))
Standard IP access list 20
    10 permit host 192.168.120.4 (12 match(es))
Extended IP access list 100
    10 permit tcp 192.168.120.0 0.0.0.255 host 192.168.110.3 eq
telnet

Router#
```

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```
Router#en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#access-list 10 deny 192.168.120.4 0.0.0.0
Router(config)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
show access-lists
Standard IP access list 10
    10 permit 192.168.0.0 0.0.255.255
    20 deny host 192.168.120.4
Standard IP access list 20
    10 permit host 192.168.120.4
Extended IP access list 100
    10 permit tcp 192.168.120.0 0.0.0.255 host 192.168.110.3 eq
telnet

Router#
```

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