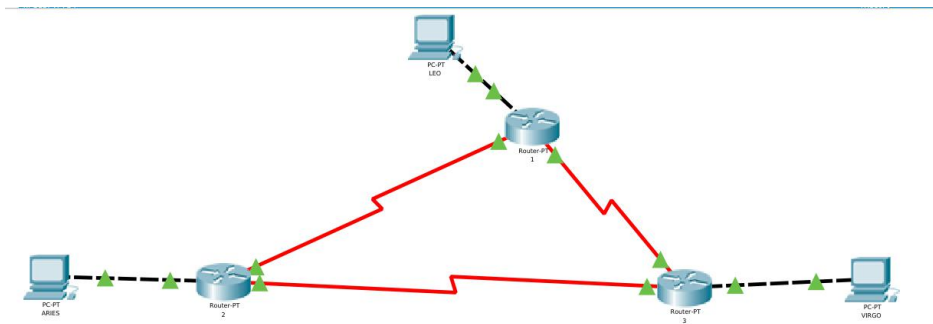


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NIM : L200170118
Kelas : C

Modul 7

Kegiatan 1



Konfigurasi router

Router eagle

```
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip add 172.21.10.0 255.255.255.0
Bad mask /24 for address 172.21.10.0
Router(config-if)#ip add 172.21.10.10 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#int se2/0
Router(config-if)#clock rate 2000000
Router(config-if)#ip add 172.21.1.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#int se3/0
Router(config-if)#clock rate 2000000
Router(config-if)#ip add 172.21.2.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#
```

Router puma

```

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip add 172.21.20.20 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#int se2/0
Router(config-if)#clock rate 2000000
This command applies only to DCE interfaces
Router(config-if)#ip add 172.21.1.2 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

Router(config-if)#ex
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
it
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int se3/0
Router(config-if)#ip add 172.21.3.2 255.255.255.0
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial3/0, changed state to down
Router(config-if)#exit
Router(config)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to up

Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

```

Router tiger

```

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip add 172.21.30.30 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#int se2/0
Router(config-if)#clock rate 2000000
This command applies only to DCE interfaces
Router(config-if)#ip add 172.21.2.3 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

Router(config-if)#exit
Router(config)#int
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

% Incomplete command.
Router(config)#int se3/0
Router(config-if)#ip add 172.21.3.3 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up

Router(config-if)#exit
Router(config)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to up

Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

```

Konfigurasi pc

Pc leo

<input type="radio"/> DHCP <input checked="" type="radio"/> Static	
IP Address	172.21.10.1
Subnet Mask	255.255.255.0
Default Gateway	172.21.10.10
DNS Server	0.0.0.0

Pc aries

<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	172.21.20.2
Subnet Mask	255.255.255.0
Default Gateway	172.21.20.20
DNS Server	0.0.0.0

Pc virgo

<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	172.21.30.3
Subnet Mask	255.255.255.0
Default Gateway	172.21.30.30
DNS Server	0.0.0.0

Pengujian kesesuaian konfigurasi

Pc leo ke router eagle

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.1.1

Pinging 172.21.1.1 with 32 bytes of data:

Reply from 172.21.1.1: bytes=32 time=44ms TTL=255
Reply from 172.21.1.1: bytes=32 time<1ms TTL=255
Reply from 172.21.1.1: bytes=32 time<1ms TTL=255
Reply from 172.21.1.1: bytes=32 time<1ms TTL=255
```

Pc aries ke router puma

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.1.2

Pinging 172.21.1.2 with 32 bytes of data:

Reply from 172.21.1.2: bytes=32 time=2ms TTL=255
Reply from 172.21.1.2: bytes=32 time<1ms TTL=255
Reply from 172.21.1.2: bytes=32 time<1ms TTL=255
Reply from 172.21.1.2: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms
```

Pc virgo ke router tiger

```

Packet Tracer PC Command Line 1.0
C:\>ping 172.21.3.3

Pinging 172.21.3.3 with 32 bytes of data:

Reply from 172.21.3.3: bytes=32 time=1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.3.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

```

Router eagle ke router puma

```

Router>ping 172.21.1.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.1.2, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/3 ms

```

Router eagle ke router tiger

```

Router>ping 172.21.2.3

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.2.3, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/8/36 ms

```

Router puma ke router tiger

```

Router>ping 172.21.3.3

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.3.3, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/4/16 ms

```

Tugas 7A: Route table pada masing-masing router

Router eagle

```

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

    172.21.0.0/24 is subnetted, 3 subnets
C       172.21.1.0 is directly connected, Serial2/0
C       172.21.2.0 is directly connected, Serial3/0
C       172.21.10.0 is directly connected, FastEthernet0/0

```

Router puma

```

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

    172.21.0.0/24 is subnetted, 3 subnets
C       172.21.1.0 is directly connected, Serial2/0
C       172.21.3.0 is directly connected, Serial3/0
C       172.21.20.0 is directly connected, FastEthernet0/0

```

Router tiger

```

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

    172.21.0.0/24 is subnetted, 3 subnets
C       172.21.2.0 is directly connected, Serial2/0
C       172.21.3.0 is directly connected, Serial3/0
C       172.21.30.0 is directly connected, FastEthernet0/0

```

Tugas 8A: router eagle ping ke router puma

```

Router>ping 172.21.20.20

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.20.20, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)

```

Tugas 9A: pc leo trace ke pc aries

```

C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

  1  2 ms      1 ms      0 ms      172.21.10.10
  2  0 ms      *          0 ms      172.21.10.10
  3  *          0 ms      *          Request timed out.
  4  0 ms      *          0 ms      172.21.10.10
  5  *          0 ms      *          Request timed out.
  6  11 ms     *          0 ms      172.21.10.10
  7  *          0 ms      *          Request timed out.
  8  0 ms      *          0 ms      172.21.10.10
  9  *          0 ms      *          Request timed out.
 10  0 ms      *          0 ms      172.21.10.10
 11  *          0 ms      *          Request timed out.
 12  0 ms      *          0 ms      172.21.10.10
 13  *          0 ms      *          Request timed out.
 14  0 ms      *          0 ms      172.21.10.10
 15  *          0 ms      *          Request timed out.
 16  0 ms      *          0 ms      172.21.10.10
 17  *          0 ms      *          Request timed out.
 18  0 ms      *          0 ms      172.21.10.10
 19  *          0 ms      *          Request timed out.
 20  0 ms      *          0 ms      172.21.10.10
 21  *          0 ms      *          Request timed out.
 22  0 ms      *          0 ms      172.21.10.10
 23  *          0 ms      *          Request timed out.
 24  0 ms      *          0 ms      172.21.10.10
 25  *          0 ms      *          Request timed out.
 26  0 ms      *          0 ms      172.21.10.10
 27  *          0 ms      *          Request timed out.
 28  0 ms      *          0 ms      172.21.10.10
 29  *          0 ms      *          Request timed out.
 30  0 ms      *          0 ms      172.21.10.10

Trace complete.

```

Tugas 10A: pc leo trace ke router eagle

```

C:\>tracert 172.21.1.1

Tracing route to 172.21.1.1 over a maximum of 30 hops:

  1  1 ms      0 ms      0 ms      172.21.1.1

Trace complete.

```

Tugas 11A: penambahan route table

Router eagle

```

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.20.0 255.255.255.0 172.21.1.2
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.2.3
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

```

Router puma

```

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.20.0 255.255.255.0 172.21.1.2
%Invalid next hop address (it's this router)
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.2.3
Router(config)#ip route 172.21.10.0 255.255.255.0 172.21.1.1
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

```

Router tiger

```

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.10.0 255.255.255.0 172.21.2.1
Router(config)#ip route 172.21.20.0 255.255.255.0 172.21.3.2
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

```

Tugas 12A: pc leo ping ke pc aries dan trace ke pc loe ke pc aries

```

Ping statistics for 172.21.20.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 12ms, Average = 6ms

C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

  1  1 ms    0 ms    0 ms    172.21.10.10
  2  1 ms    1 ms    1 ms    172.21.1.2
  3  12 ms   1 ms    13 ms   172.21.20.2

Trace complete.

```

Tugas 12B:

Mengubah ip leo menjadi 172.21.100.0/24

<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	<input type="text" value="172.21.100.1"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Default Gateway	<input type="text" value="172.21.100.10"/>
DNS Server	<input type="text" value="0.0.0.0"/>

Konfigurasi ip baru pada router eagle

```
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip add 172.21.100.10 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
```

Konfigurasi ip route baru pada router puma dan tiger

```
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.100.0 255.255.255.0 172.21.1.1
Router(config)#
Router(config)#
```

```
Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.100.0 255.255.255.0 172.21.2.1
Router(config)#
Router(config)#
```

Melakukan ping tracert dari pcleo ke pc aries

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.20.2

Pinging 172.21.20.2 with 32 bytes of data:

Request timed out.
Reply from 172.21.20.2: bytes=32 time=5ms TTL=126
Reply from 172.21.20.2: bytes=32 time=15ms TTL=126
Reply from 172.21.20.2: bytes=32 time=13ms TTL=126

Ping statistics for 172.21.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss)
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 15ms, Average = 11ms

C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

  0  1 ms    0 ms    0 ms    172.21.100.10
  1  1 ms    1 ms    11 ms   172.21.1.2
  2  11 ms   12 ms   10 ms   172.21.20.2
```

Melakukan pin tracert dari pc leo ke pc virgo


```

C:\>ping 172.21.30.3

Pinging 172.21.30.3 with 32 bytes of data:

Request timed out.
Reply from 172.21.30.3: bytes=32 time=12ms TTL=126
Reply from 172.21.30.3: bytes=32 time=5ms TTL=126
Reply from 172.21.30.3: bytes=32 time=11ms TTL=126

Ping statistics for 172.21.30.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 12ms, Average = 9ms

C:\>tracert 172.21.30.3

Tracing route to 172.21.30.3 over a maximum of 30 hops:

  0  1 ms    0 ms    0 ms    172.21.100.10
  1  0 ms    0 ms    0 ms    172.21.2.3
  2  12 ms   5 ms    0 ms    172.21.30.3

Trace complete.

```

Kegiatan 2

Konfigurasi routing RIP router eagle

```

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network 172.21.0.0
Router(config-router)#

```

Melakukan show running-config

```

interface FastEthernet0/0
 ip address 172.21.100.10 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 172.21.1.1 255.255.255.0
 clock rate 2000000
!
interface Serial3/0
 ip address 172.21.2.1 255.255.255.0
 clock rate 2000000
!
interface FastEthernet4/0
 no ip address
 shutdown
!
interface FastEthernet5/0
 no ip address
 shutdown
!
router rip
 network 172.21.0.0
!
ip classless
ip route 172.21.20.0 255.255.255.0 172.21.1.2
ip route 172.21.30.0 255.255.255.0 172.21.2.3
!
ip flow-export version 9
!

```

Tugas 4A: ip address 172.21.0.0

Tugas 4B : karena tidak mengubah konfigurasi ip address pada router lainnya.

Tugas 5A :Melakukan debug ip rip

```
Router#RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.1.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.100.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.100.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.1.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.100.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.1.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.100.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
```

Konfigurasi routing RIP router puma

```

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL
Router(config)#router rip
Router(config-router)#network 172.21.0.0
      ^
% Invalid input detected at '^' marker.
Router(config-router)#network 172.21.1.0

```

```

:
:
:
interface FastEthernet0/0
ip address 172.21.20.20 255.255.255.0
duplex auto
speed auto
:
interface FastEthernet1/0
no ip address
duplex auto
speed auto
shutdown
:
interface Serial2/0
ip address 172.21.1.2 255.255.255.0
:
interface Serial3/0
ip address 172.21.3.2 255.255.255.0
clock rate 2000000
:
interface FastEthernet4/0
no ip address
shutdown
:
interface FastEthernet5/0
no ip address
shutdown
:
router rip
network 172.21.0.0
:
ip classless
ip route 172.21.30.0 255.255.255.0 172.21.2.3
ip route 172.21.10.0 255.255.255.0 172.21.1.1
ip route 172.21.100.0 255.255.255.0 172.21.1.1
:
ip flow-export version 9
:
:
:
:
:
:
:
line con 0
:
line aux 0

```

```

Router#debug ip rip
RIP protocol debugging is on
Router#RIP: received v1 update from 172.21.1.1 on Serial2/0
    172.21.2.0 in 1 hops
    172.21.100.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.20.20)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.3.0 metric 1
    network 172.21.100.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.2)
RIP: build update entries
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.3.2)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.20.0 metric 1
    network 172.21.100.0 metric 2
RIP: received v1 update from 172.21.1.1 on Serial2/0
    172.21.2.0 in 1 hops
    172.21.100.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.20.20)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.3.0 metric 1
    network 172.21.100.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.2)
RIP: build update entries
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.3.2)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.20.0 metric 1
    network 172.21.100.0 metric 2
RIP: received v1 update from 172.21.1.1 on Serial2/0
    172.21.2.0 in 1 hops
    172.21.100.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.20.20)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2
    network 172.21.3.0 metric 1
    network 172.21.100.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.2)
RIP: build update entries
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.3.2)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 2

```

Tugas 6A : Konfigurasi routing RIP router tiger

```

Router>en
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network 172.21.2.0
Router(config-router)#

```

```

!
interface FastEthernet0/0
 ip address 172.21.30.30 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 172.21.2.3 255.255.255.0
!
interface Serial3/0
 ip address 172.21.3.3 255.255.255.0
!
interface FastEthernet4/0
 no ip address
 shutdown
!
interface FastEthernet5/0
 no ip address
 shutdown
!
router rip
 network 172.21.0.0
!
ip classless
ip route 172.21.10.0 255.255.255.0 172.21.2.1
ip route 172.21.20.0 255.255.255.0 172.21.3.2
ip route 172.21.100.0 255.255.255.0 172.21.2.1
!
ip flow-export version 9
!

```

```

Router#
Router#debug ip rip
RIP protocol debugging is on
Router#RIP: received v1 update from 172.21.3.2 on Serial3/0
    172.21.1.0 in 1 hops
    172.21.20.0 in 1 hops
    172.21.100.0 in 2 hops
RIP: received v1 update from 172.21.2.1 on Serial2/0
    172.21.1.0 in 1 hops
    172.21.20.0 in 2 hops
    172.21.100.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.30.30)
RIP: build update entries
    network 172.21.1.0 metric 2
    network 172.21.2.0 metric 1
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 2
    network 172.21.100.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.2.3)
RIP: build update entries
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 2
    network 172.21.30.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.3.3)
RIP: build update entries
    network 172.21.2.0 metric 1
    network 172.21.30.0 metric 1
    network 172.21.100.0 metric 2
RIP: received v1 update from 172.21.3.2 on Serial3/0
    172.21.1.0 in 1 hops
    172.21.20.0 in 1 hops
    172.21.100.0 in 2 hops
RIP: received v1 update from 172.21.2.1 on Serial2/0
    172.21.1.0 in 1 hops
    172.21.20.0 in 2 hops
    172.21.100.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.30.30)
RIP: build update entries
    network 172.21.1.0 metric 2
    network 172.21.2.0 metric 1
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 2
    network 172.21.100.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.2.3)
RIP: build update entries
    network 172.21.3.0 metric 1
    network 172.21.20.0 metric 2
    network 172.21.30.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.3.3)
RIP: build update entries
    network 172.21.2.0 metric 1
    network 172.21.30.0 metric 1
    network 172.21.100.0 metric 2
RIP: received v1 update from 172.21.3.2 on Serial3/0
    172.21.1.0 in 1 hops
    172.21.20.0 in 1 hops
    172.21.100.0 in 2 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.30.30)
RIP: build update entries

```

Tugas 6B:

```

    network 172.21.2.0 metric 1
    network 172.21.30.0 metric 2
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.2.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: received v1 update from 172.21.1.2 on Serial2/0
    172.21.3.0 in 1 hops
    172.21.30.0 in 2 hops
RIP: received v1 update from 172.21.2.3 on Serial3/0
    172.21.3.0 in 1 hops
    172.21.30.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.100.10)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 1
    network 172.21.3.0 metric 2
    network 172.21.30.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
    network 172.21.2.0 metric 1
    network 172.21.30.0 metric 2
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.2.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: received v1 update from 172.21.1.2 on Serial2/0
    172.21.3.0 in 1 hops
    172.21.30.0 in 2 hops
RIP: received v1 update from 172.21.2.3 on Serial3/0
    172.21.3.0 in 1 hops
    172.21.30.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.100.10)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 1
    network 172.21.3.0 metric 2
    network 172.21.30.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
    network 172.21.2.0 metric 1
    network 172.21.30.0 metric 2
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.2.1)
RIP: build update entries

```

Tugas 6C: ya, karena jika tidak merubah konfigurasi maka tidak akan pc tidak akan saling terhubung.

Tracert pc leo ke pc aries

```
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

  0  1 ms    0 ms    0 ms    172.21.100.10
  1  0 ms    1 ms    13 ms   172.21.1.2
  2  0 ms    13 ms   12 ms   172.21.20.2

Trace complete.
```

Hubungan router eagle dan puma terputus

```
Router(config)#int fa0/0
Router(config-if)#shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to administratively down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to down
```

```
Router>en
Router#debug ip rip
RIP protocol debugging is on
Router#RIP: received v1 update from 172.21.1.2 on Serial2/0
  172.21.3.0 in 1 hops
  172.21.30.0 in 2 hops
RIP: received v1 update from 172.21.2.3 on Serial3/0
  172.21.3.0 in 1 hops
  172.21.20.0 in 16 hops
  172.21.30.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.100.10)
RIP: build update entries
  network 172.21.1.0 metric 1
  network 172.21.2.0 metric 1
  network 172.21.3.0 metric 2
  network 172.21.20.0 metric 16
  network 172.21.30.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.2.1)
RIP: build update entries
  network 172.21.1.0 metric 1
  network 172.21.20.0 metric 16
  network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
  network 172.21.2.0 metric 1
  network 172.21.30.0 metric 2
  network 172.21.100.0 metric 1
RIP: received v1 update from 172.21.1.2 on Serial2/0
  172.21.3.0 in 1 hops
  172.21.30.0 in 2 hops
RIP: received v1 update from 172.21.2.3 on Serial3/0
  172.21.3.0 in 1 hops
  172.21.20.0 in 16 hops
  172.21.30.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.100.10)
RIP: build update entries
  network 172.21.1.0 metric 1
  network 172.21.2.0 metric 1
  network 172.21.3.0 metric 2
  network 172.21.20.0 metric 16
  network 172.21.30.0 metric 2
```

Tugas 8A:

Ping pc leo ke pc aries

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.20.2

Pinging 172.21.20.2 with 32 bytes of data:

Reply from 172.21.1.2: Destination host unreachable.
Reply from 172.21.1.2: Destination host unreachable.
Reply from 172.21.1.2: Destination host unreachable.
Reply from 172.21.1.2: Destination host unreachable.

Ping statistics for 172.21.20.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

Tugas 9A:

Kegiatan 3

Konfigurasi RIP router eagle

```
Router(config)#router eigrp 100
Router(config-router)#network 172.21.0.0
Router(config-router)#exit
```

```
!
interface FastEthernet0/0
 ip address 172.21.100.10 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 172.21.1.1 255.255.255.0
 clock rate 2000000
!
interface Serial3/0
 ip address 172.21.2.1 255.255.255.0
 clock rate 2000000
!
interface FastEthernet4/0
 no ip address
 shutdown
!
interface FastEthernet5/0
 no ip address
 shutdown
!
router eigrp 100
 network 172.21.0.0
 auto-summary
!
router rip
 network 172.21.0.0
!
ip classless
ip route 172.21.20.0 255.255.255.0 172.21.1.2
ip route 172.21.30.0 255.255.255.0 172.21.2.3
!
```

Tugas 4A : network 172.21.0.0

Tugas 5A:

Tugas 7A :Routing IGRP pada router puma

```
Router(config-router)#exit
Router(config)#router eigrp 100
Router(config-router)#network 172.21.1.0
Router(config-router)#exit
```

```

-
interface FastEthernet0/0
 ip address 172.21.20.20 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 172.21.1.2 255.255.255.0
!
interface Serial3/0
 ip address 172.21.3.2 255.255.255.0
 clock rate 2000000
!
interface FastEthernet4/0
 no ip address
 shutdown
!
interface FastEthernet5/0
 no ip address
 shutdown
!
router eigrp 100
 network 172.21.0.0
 auto-summary
!
router rip
 network 172.21.0.0
!
ip classless
ip route 172.21.30.0 255.255.255.0 172.21.2.3
ip route 172.21.10.0 255.255.255.0 172.21.1.1
ip route 172.21.100.0 255.255.255.0 172.21.1.1
!
-

```

Tugas 7B: proses update pada router eagle

```

-
interface FastEthernet0/0
 ip address 172.21.100.10 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 172.21.1.1 255.255.255.0
 clock rate 2000000
!
interface Serial3/0
 ip address 172.21.2.1 255.255.255.0
 clock rate 2000000
!
interface FastEthernet4/0
 no ip address
 shutdown
!
interface FastEthernet5/0
 no ip address
 shutdown
!
router eigrp 100
 network 172.21.0.0
 auto-summary
!
router rip
 network 172.21.0.0
!
ip classless
ip route 172.21.20.0 255.255.255.0 172.21.1.2
ip route 172.21.30.0 255.255.255.0 172.21.2.3
!
-

```

Tugas 7C : ya, karena jika tidak merubah konfigurasi maka tidak akan pc tidak akan saling terhubung.

Ping pc leo ke pc aries

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.20.2

Pinging 172.21.20.2 with 32 bytes of data:

Request timed out.
Reply from 172.21.20.2: bytes=32 time=13ms TTL=126
Reply from 172.21.20.2: bytes=32 time=1ms TTL=126
Reply from 172.21.20.2: bytes=32 time=7ms TTL=126

Ping statistics for 172.21.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 13ms, Average = 7ms
```

Tugas 9A :

```
network 172.21.2.0 metric 1
network 172.21.30.0 metric 2
network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.2.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: received v1 update from 172.21.1.2 on Serial2/0
    172.21.3.0 in 1 hops
    172.21.30.0 in 2 hops
RIP: received v1 update from 172.21.2.3 on Serial3/0
    172.21.3.0 in 1 hops
    172.21.30.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.100.10)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.2.0 metric 1
    network 172.21.3.0 metric 2
    network 172.21.30.0 metric 2
RIP: sending v1 update to 255.255.255.255 via Serial2/0 (172.21.1.1)
RIP: build update entries
    network 172.21.2.0 metric 1
    network 172.21.30.0 metric 2
    network 172.21.100.0 metric 1
RIP: sending v1 update to 255.255.255.255 via Serial3/0 (172.21.2.1)
RIP: build update entries
    network 172.21.1.0 metric 1
    network 172.21.100.0 metric 1
RIP: received v1 update from 172.21.1.2 on Serial2/0
    172.21.3.0 in 1 hops
    172.21.30.0 in 2 hops
RIP: received v1 update from 172.21.2.3 on Serial3/0
    172.21.3.0 in 1 hops
    172.21.30.0 in 1 hops
RIP: sending v1 update to 255.255.255.255 via FastEthernet0/0 (172.21.100.10)
```

Tugas 10A:

```
C:\>ping 172.21.20.2

Pinging 172.21.20.2 with 32 bytes of data:

Reply from 172.21.1.2: Destination host unreachable.
Reply from 172.21.1.2: Destination host unreachable.
Reply from 172.21.1.2: Destination host unreachable.
Reply from 172.21.1.2: Destination host unreachable.

Ping statistics for 172.21.20.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```