Configuring RIPv2

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Part 1: Configure RIPv2

) **Configure RIPv2 on R1** I configured the Router for default rute all internet traffic through serial 0/0/1

```
R1>ena
R1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#ip route 0.0.0.0 0.0.0.0 serial 0/0/1
%Default route without gateway, if not a point-to-point interface, may impact performance
R1(config)#
```

Next I, configured the router to use rip protocol, then to use version 2, and then passed it the no auto-summary command

```
R1>ena
R1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#ip route 0.0.0.0 0.0.0.0 serial 0/0/1
%Default route without gateway, if not a point-to-point interface, may impact performance
R1(config)#router rip
R1(config-router)#version 2
R1(config-router)#no auto-summary
R1(config-router)#
```

I set the networks on R1, and then Used the passive interface command to setup the LAN port, and then default-information originate to advertise the routes that I've configured see: [NetSetR1]. Lastly, I stepped out of config router mode and ran the command: copy-running config startup-config to save my work see: [finishR1]

```
R2>ena
R2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#router rip
R2(config-router)#version 2
R2(config-router)#no auto
R2(config-router)#no auto-summary
R2(config-router)#netw
R2(config-router)#network 192.168.2.0
R2(config-router)#network 192.168.3.0
R2(config-router)#network 192.168.4.0
R2(config-router)#passive-
R2(config-router)#passive-interface gi
R2(config-router)#passive-interface gigabitEthernet 0/0
R2(config-router)#^Z
R2#
%SYS-5-CONFIG_I: Configured from console by console

R2#run
R2#run
R2#runnin
R2#copy
R2#copy run
R2#copy running-config st
R2#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R2#
```

[NetSetR1]

```
R1#copy runn
R1#copy running-config star
R1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R1#
```

[finishR1]

) **Configure RIPv2 on R2 and R3** Next I configured R2 and R3 for their networks

```
R2>ena
R2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#router rip
R2(config-router)#version 2
R2(config-router)#no auto
R2(config-router)#no auto-summary
R2(config-router)#netw
R2(config-router)#network 192.168.2.0
R2(config-router)#network 192.168.3.0
R2(config-router)#network 192.168.4.0
R2(config-router)#passive-
R2(config-router)#passive-interface gi
R2(config-router)#passive-interface gigabitEthernet 0/0
R2(config-router)#^Z
R2#
%SYS-5-CONFIG_I: Configured from console by console

R2#run
R2#run
R2#runnin
R2#copy
R2#copy run
R2#copy running-config st
R2#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R2#
```

[configR2]

```
R3>ena
R3#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R3(config)#router rip
R3(config-router)#version 2
R3(config-router)#no auto-summary
R3(config-router)#network 192.168.4.0
R3(config-router)#network 192.168.5.0
R3(config-router)#pass
R3(config-router)#passive-interface gi
R3(config-router)#passive-interface gigabitEthernet 0/0
R3(config-router)#^Z
R3#
%SYS-5-CONFIG_I: Configured from console by console

R3#copy
R3#copy run
R3#copy running-config st
R3#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R3#
```

[configR3]

Part 2: Verify Configurations

) View Routing Tables of R1, R2, and R3

```
R1>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 0.0.0.0 to network 0.0.0.0

     192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/24 is directly connected, GigabitEthernet0/0
L       192.168.1.1/32 is directly connected, GigabitEthernet0/0
     192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, Serial0/0/0
L       192.168.2.1/32 is directly connected, Serial0/0/0
R    192.168.3.0/24 [120/1] via 192.168.2.2, 00:00:22, Serial0/0/0
R    192.168.4.0/24 [120/1] via 192.168.2.2, 00:00:22, Serial0/0/0
R    192.168.5.0/24 [120/2] via 192.168.2.2, 00:00:22, Serial0/0/0
     209.165.200.0/24 is variably subnetted, 2 subnets, 2 masks
C       209.165.200.224/30 is directly connected, Serial0/0/1
L       209.165.200.225/32 is directly connected, Serial0/0/1
S*   0.0.0.0/0 is directly connected, Serial0/0/1

R1>
R1>
```

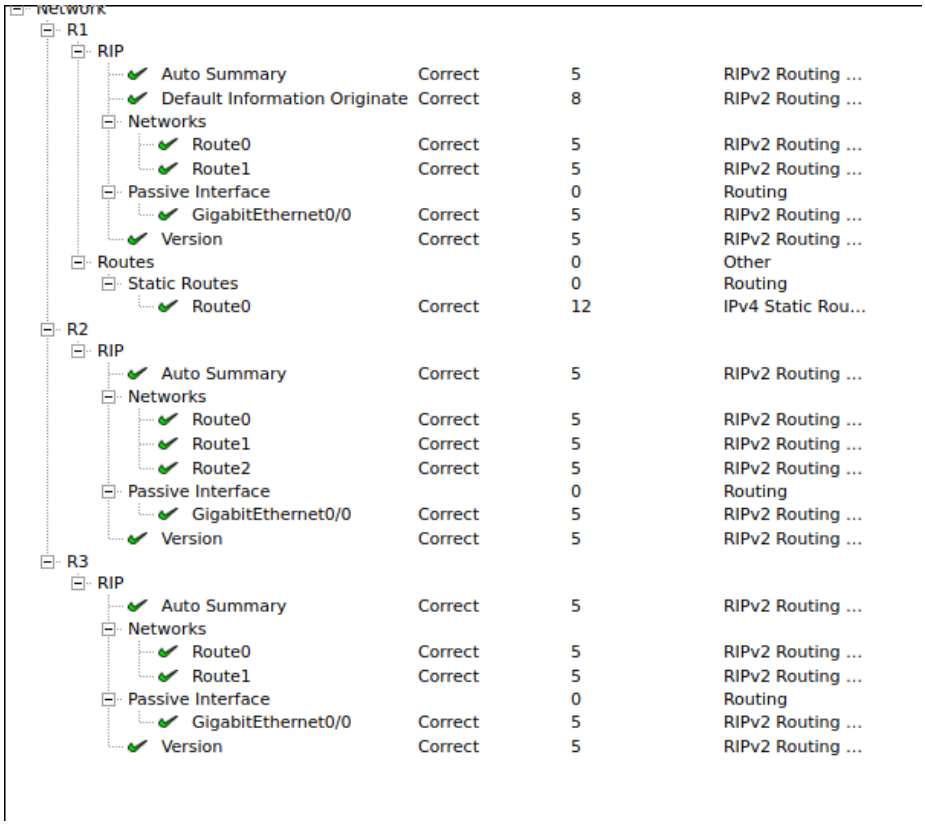
```
R2>show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       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 192.168.2.1 to network 0.0.0.0

R    192.168.1.0/24 [120/1] via 192.168.2.1, 00:00:28, Serial0/0/0
     192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, Serial0/0/0
L       192.168.2.2/32 is directly connected, Serial0/0/0
     192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.3.0/24 is directly connected, GigabitEthernet0/0
L       192.168.3.1/32 is directly connected, GigabitEthernet0/0
     192.168.4.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.4.0/24 is directly connected, Serial0/0/1
L       192.168.4.2/32 is directly connected, Serial0/0/1
R    192.168.5.0/24 [120/1] via 192.168.4.1, 00:00:26, Serial0/0/1
R*   0.0.0.0/0 [120/1] via 192.168.2.1, 00:00:28, Serial0/0/0
```

[routeR2]

```
R3#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 192.168.4.2 to network 0.0.0.0

R    192.168.1.0/24 [120/2] via 192.168.4.2, 00:00:04, Serial0/0/1
R    192.168.2.0/24 [120/1] via 192.168.4.2, 00:00:04, Serial0/0/1
R    192.168.3.0/24 [120/1] via 192.168.4.2, 00:00:04, Serial0/0/1
     192.168.4.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.4.0/24 is directly connected, Serial0/0/1
L       192.168.4.1/32 is directly connected, Serial0/0/1
     192.168.5.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.5.0/24 is directly connected, GigabitEthernet0/0
L       192.168.5.1/32 is directly connected, GigabitEthernet0/0
R*   0.0.0.0/0 [120/2] via 192.168.4.2, 00:00:04, Serial0/0/1

R3#
```

[routeR3]

) **Success**



Network			
R1			
RIP			
Auto Summary	Correct	5	RIPv2 Routing ...
Default Information Originate	Correct	8	RIPv2 Routing ...
Networks			
Route0	Correct	5	RIPv2 Routing ...
Route1	Correct	5	RIPv2 Routing ...
Passive Interface		0	Routing
GigabitEthernet0/0	Correct	5	RIPv2 Routing ...
Version	Correct	5	RIPv2 Routing ...
Routes		0	Other
Static Routes		0	Routing
Route0	Correct	12	IPv4 Static Rou...
R2			
RIP			
Auto Summary	Correct	5	RIPv2 Routing ...
Networks			
Route0	Correct	5	RIPv2 Routing ...
Route1	Correct	5	RIPv2 Routing ...
Route2	Correct	5	RIPv2 Routing ...
Passive Interface		0	Routing
GigabitEthernet0/0	Correct	5	RIPv2 Routing ...
Version	Correct	5	RIPv2 Routing ...
R3			
RIP			
Auto Summary	Correct	5	RIPv2 Routing ...
Networks			
Route0	Correct	5	RIPv2 Routing ...
Route1	Correct	5	RIPv2 Routing ...
Passive Interface		0	Routing
GigabitEthernet0/0	Correct	5	RIPv2 Routing ...
Version	Correct	5	RIPv2 Routing ...

[success1]

Score : 100/100

Item Count : 18/18

Component	Items/Total	Score
IPv4 Static Route Configuration	1/1	12/12
RIPv2 Routing Configuration	17/17	88/88

[success2]