Network Security Lab 1: Packet Tracer Configuring RIPv2

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I. Configure RIPv2

A. Configure RIPv2 on R1

a. We configure a static IP route using the `ip route` command followed by the IP address and the interface.

```
# ip route 0.0.0.0 0.0.0.0 S0/0/1
```

The internet traffic is now routed towards the cloud. We print the ip routes which yields the following results:

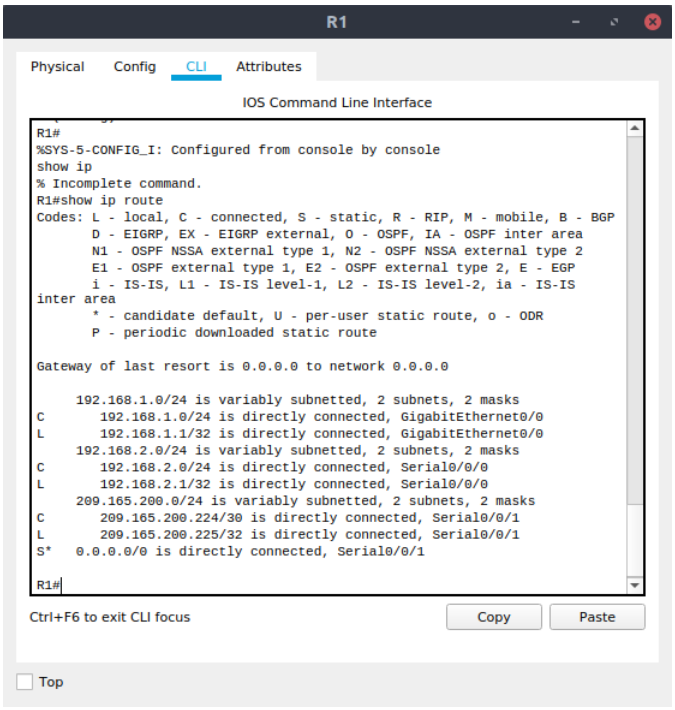

Fig. 1. IP routes

b. To enter RIP protocol configuration mode, use the following command:

```
# router rip
```

c. We want to use version 2 of the RIP protocol, which is done with the following command:

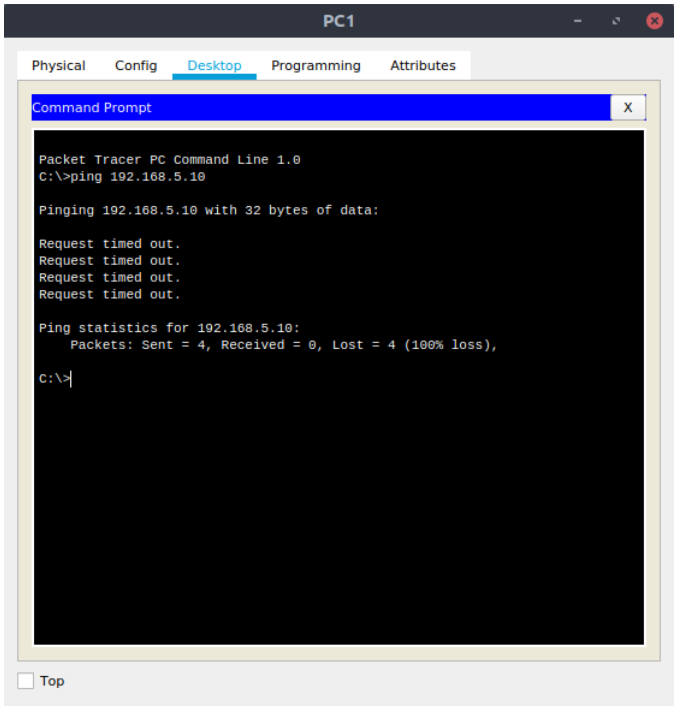

Fig. 2. Ping PC3 from PC1

```
# version 2
# no auto-summary
```

d. Configure RIP for the networks that connect to R1.

```
# 192.168.1.0
# 192.168.2.0
```

e. Configure the LAN port that contains no routers so that it does not send out any routing information.

```
# passive-interface gig 0/0
```

f. Advertise the default route configured in step 1a with other RIP routers.

```
# default-information originate
```

g. Change the configuration.

```
# copy running-config startup-config
```

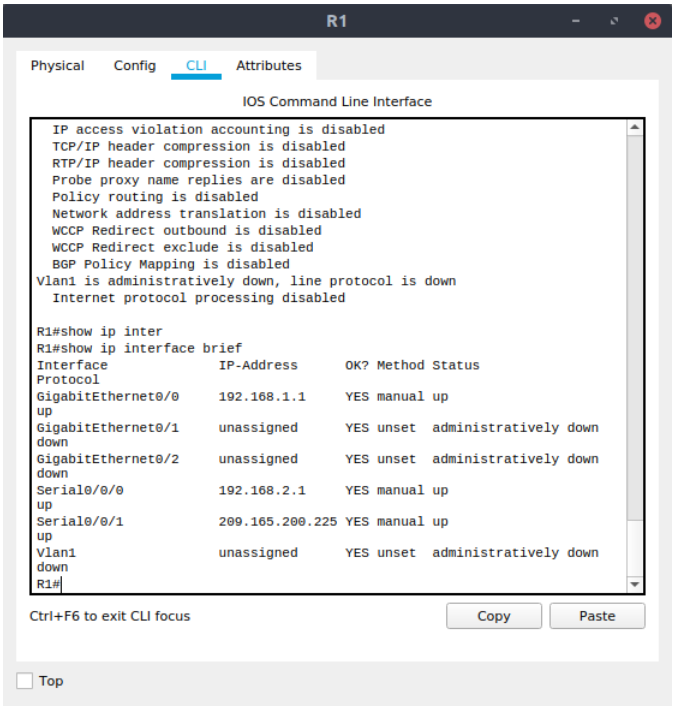

Fig. 3. IP interfaces

B. Configure RIPv2 on R2

a. Enter RIP protocol configuration mode.

```
# router rip
```

b. We want to use version 2 of the RIP protocol, which is done with the following command:

```
# version 2
# no auto-summary
```

c. Configure RIP for the networks directly connected to R2.

```
# network 192.168.2.0
# network 192.168.3.0
# network 192.168.4.0
```

d. Configure the interface that contains no routers so that it does not send out routing information.

```
# passive-interface gig0/0
```

g. Change the configuration.

```
# copy running-config startup-config
```

C. Configure RIPv2 on R3

```
# router rip
# version 2
# no auto-summary
# network 192.168.4.0
# network 192.168.5.0
# passive-interface gig0/0
```

II. Verify Configurations

A. View routing tables of R1, R2 and R3

a.

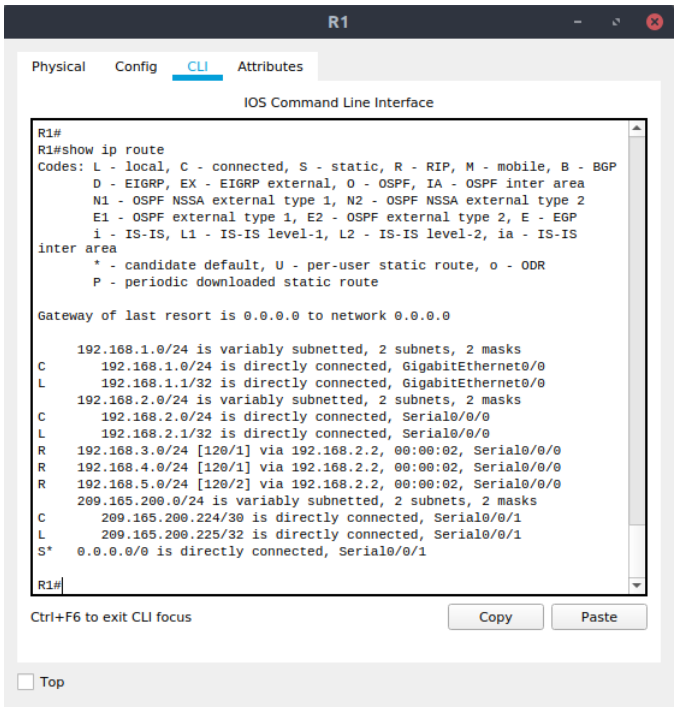

Fig. 4. IP routes

b.

B. Verify full connectivity to all destinations

We can ping the server from every PC.

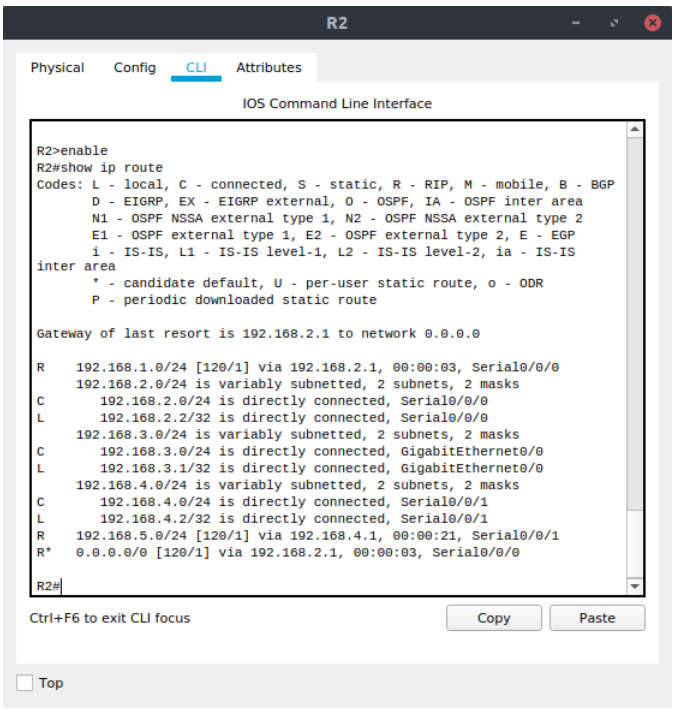

Fig. 5. IP routes

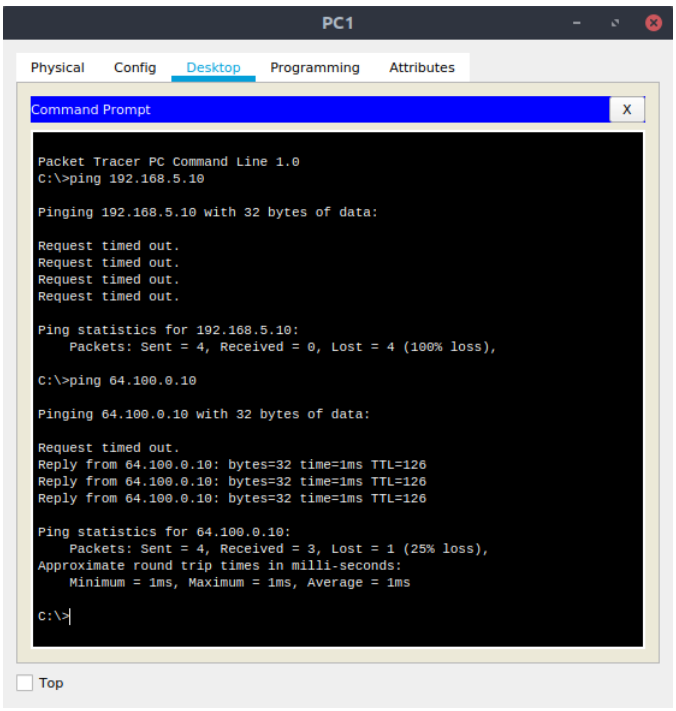

Fig. 7. PC1 can ping Server

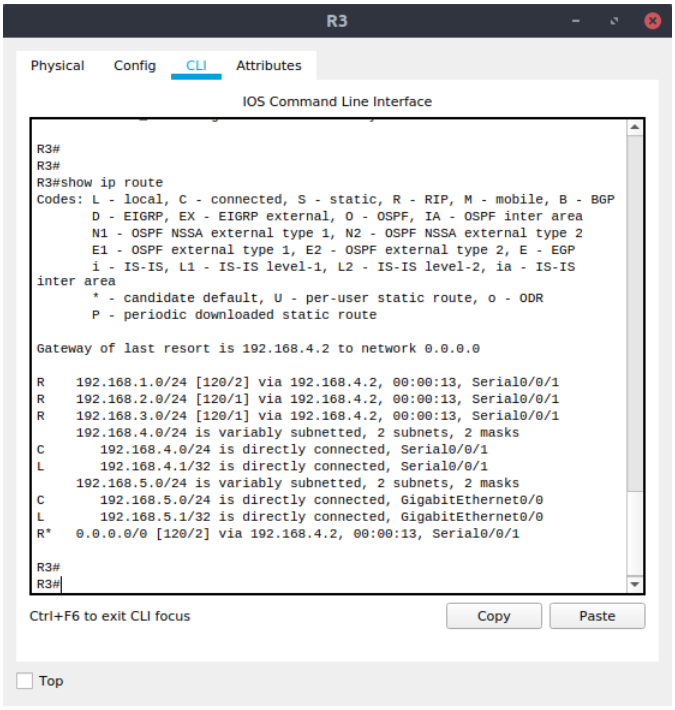

Fig. 6. IP routes

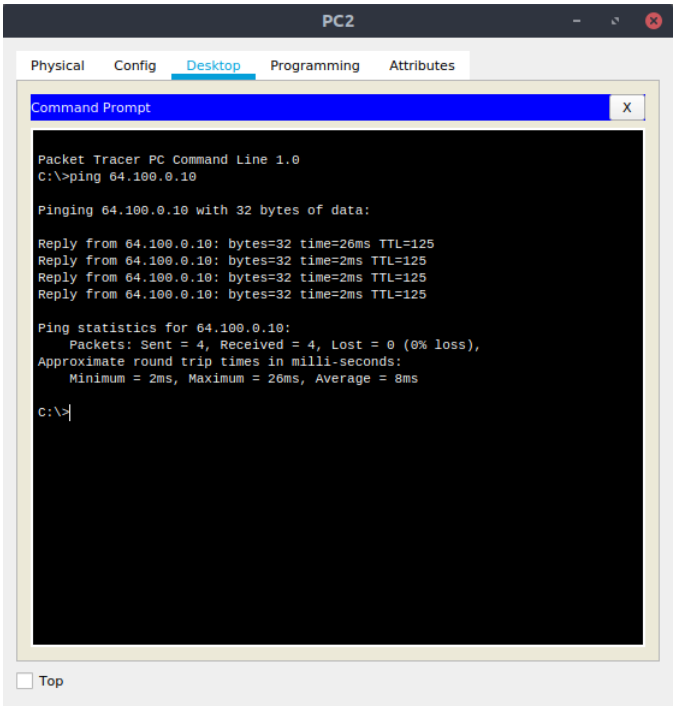

Fig. 8. PC2 can ping Server

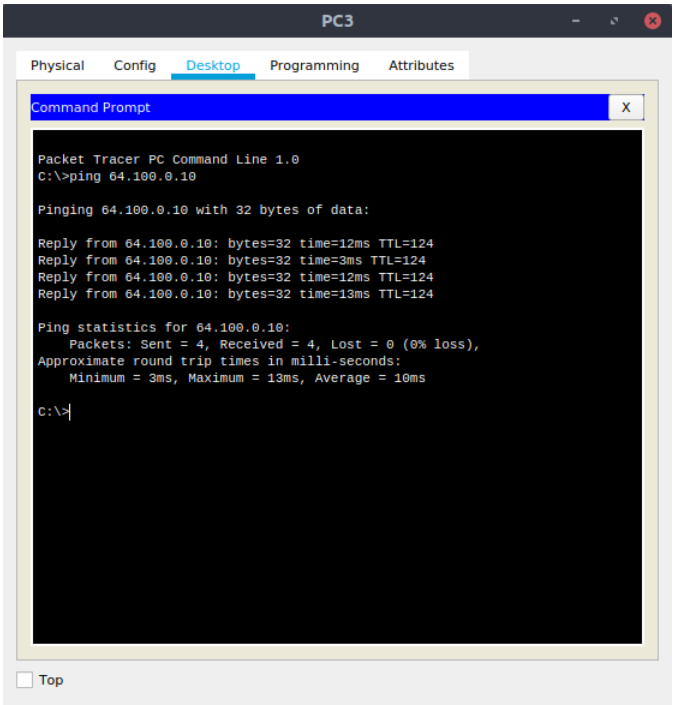

Fig. 9. PC3 can ping Server