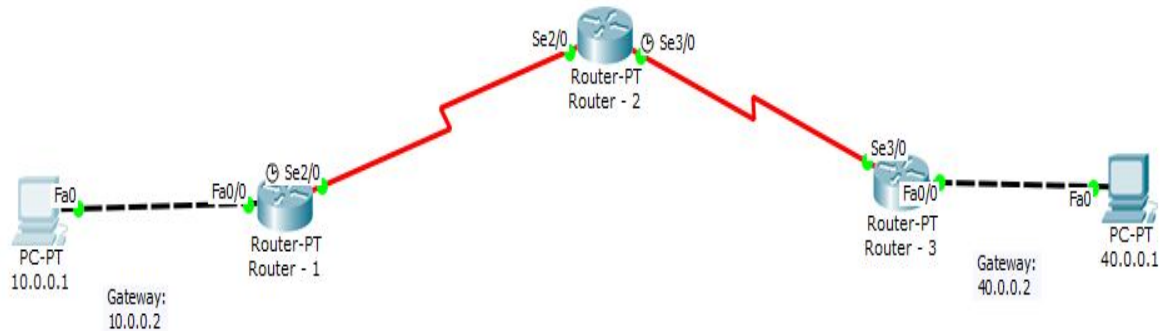


CN LAB -05(b) (21/07/2023)

USN:1BM21CS172

Configure RIP routing protocol in routers.

TOPOLOGY:



CLI COMMANDS AND show ip route:

ROUTER 1-

```
Router-1
Physical Config CLI
IOS Command Line Interface

Router#enable
Router#configure t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Fa0/0
Router(config-if)#ip address 10.0.0.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
LINE1-4-CHANGED: Interface FastEthernet0/0, changed state to up
LINE1-4-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
Router(config-if)#exit
Router(config)#interface Se2/0
Router(config-if)#ip address 20.0.0.1 255.0.0.0
Router(config-if)#encapsulation ospf
Router(config-if)#clock rate 64000
Router(config-if)#exit
Router(config)#interface Fa0/0
Router(config-if)#no shutdown
LINE1-4-CHANGED: Interface Serial2/0, changed state to down
Router(config-if)#exit
Router(config)#ip route
Router(config)#
* Invalid input detected at '^' marker.
Router(config)#route rip
Router(config)#router rip
Router(config-router)#network 10.0.0.0
Router(config-router)#network 20.0.0.0
Router(config-router)#exit
Router(config)#
LINE1-4-CHANGED: Interface Serial2/0, changed state to up
LINE1-4-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
Router(config)#show ip route
Router(config)#
* Invalid input detected at '^' marker.
Router(config)#exit
Router#
MSTP-5-CONFID_I: Configured from console by console

Router#show ip route
Codes: C - connected, S - static, I - IGMP, 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, S - SUP
A - 15-15, 11 - 15-15 level-1, 12 - 15-15 level-2, 14 - 15-15 inner area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route

Gateway of last resort is not set

C 10.0.0.0/8 is directly connected, FastEthernet0/0
C 20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 20.0.0.0/8 is directly connected, Serial2/0
C 20.0.0.2/32 is directly connected, Serial2/0
R 30.0.0.0/8 [120/1] via 20.0.0.2, 00:00:19, Serial2/0
R 40.0.0.0/8 [120/1] via 20.0.0.2, 00:00:19, Serial2/0
Router#
```

ROUTER 2 -

```
Router-2
Physical Config CLI
IOS Command Line Interface

Continue with configuration dialog? [yes/no]: no

Press RETURN to get started!

Router#enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Fa0/0
Router(config-if)#ip address 20.0.0.2 255.0.0.0
Router(config-if)#no shutdown

Router(config-if)#
ALINK-6-CHANGED: Interface Serial2/0, changed state to up

Router(config-if)#encapsulation ppp
Router(config-if)#clock
ALINKPROTO-6-UPDOWN: Line protocol on Interface Serial2/0, changed state to
Router(config-if)#exit
Router(config)#interface Ser3/0
Router(config-if)#ip address 30.0.0.1 255.0.0.0
Router(config-if)#encapsulation ppp
Router(config-if)#clock rate 4000
Router(config-if)#no shutdown

ALINK-6-CHANGED: Interface Serial3/0, changed state to down
Router(config-if)#exit
Router(config)#route rip
Router(config-router)#network 20.0.0.0
Router(config-router)#network 30.0.0.0
Router(config-router)#exit
Router(config)#
ALINK-6-CHANGED: Interface Serial3/0, changed state to up
ALINKPROTO-6-UPDOWN: Line protocol on Interface Serial3/0, changed state to up

Router(config)#exit
Router#
ASYS-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, I - ISP
        * - 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

R 10.0.0.0/8 [120/1] via 20.0.0.1, 00:00:18, Serial2/0
  20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
  C 20.0.0.0/8 is directly connected, Serial2/0
  C 30.0.0.0/8 is directly connected, Serial2/0
  C 30.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
  C 30.0.0.0/8 is directly connected, Serial3/0
  C 30.0.0.0/8 is directly connected, Serial3/0
R 40.0.0.0/8 [120/1] via 30.0.0.2, 00:00:24, Serial3/0

Router#
```

ROUTER 3-

```
Router-3
Physical Config CLI
IOS Command Line Interface

Continue with configuration dialog? [yes/no]: no

Press RETURN to get started!

Router#enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Fa0/0
Router(config-if)#ip address 40.0.0.2 255.0.0.0
Router(config-if)#encapsulation ppp
Router(config-if)#no shutdown

Router(config-if)#
ALINK-6-CHANGED: Interface Serial3/0, changed state to up

Router(config-if)#exit
Router(config)#
ALINKPROTO-6-UPDOWN: Line protocol on Interface Serial3/0, changed state to up
exit
Router#
ASYS-5-CONFIG_I: Configured from console by console

Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Fa0/0
Router(config-if)#ip address 40.0.0.2 255.0.0.0
Router(config-if)#no shutdown

Router(config-if)#
ALINK-6-CHANGED: Interface FastEthernet0/0, changed state to up
ALINKPROTO-6-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#route rip
Router(config-router)#network 30.0.0.0
Router(config-router)#network 40.0.0.0
Router(config-router)#exit
Router(config)#exit
Router#
ASYS-5-CONFIG_I: Configured from console by console

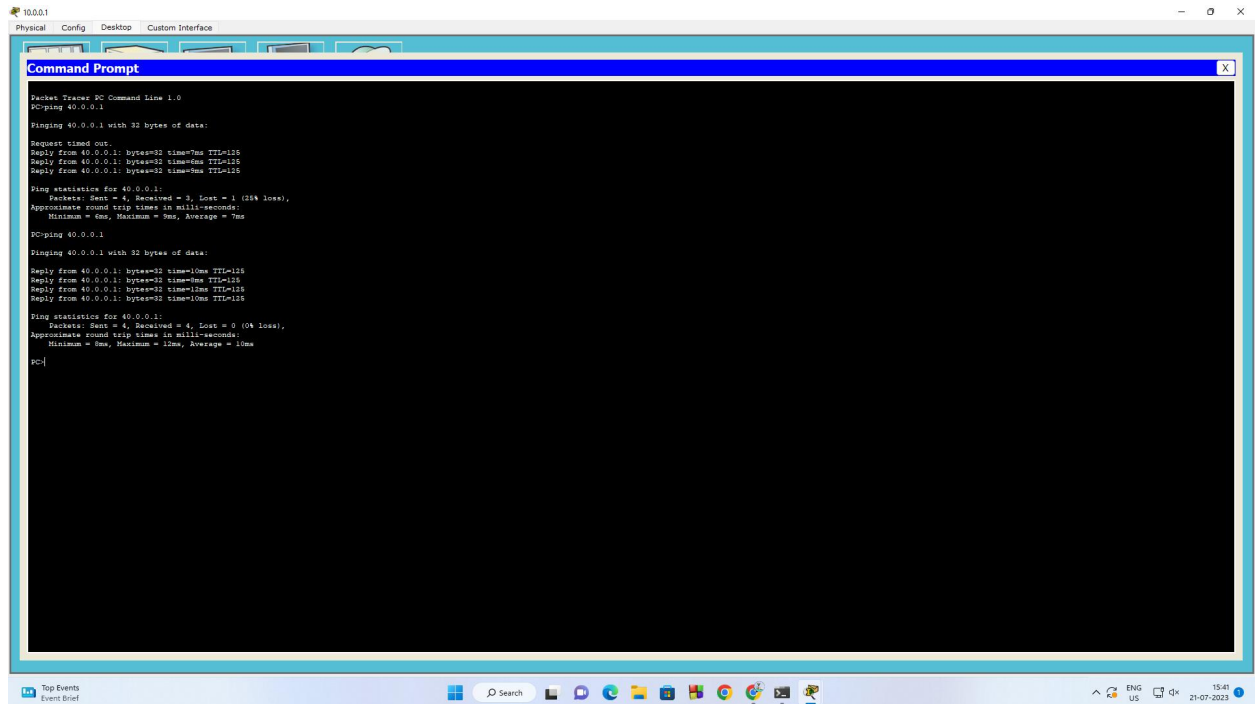
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
        N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
        E1 - OSPF external type 1, E2 - OSPF external type 2, I - ISP
        * - 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

R 10.0.0.0/8 [120/1] via 30.0.0.1, 00:00:24, Serial3/0
R 20.0.0.0/8 [120/1] via 30.0.0.1, 00:00:24, Serial3/0
  30.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
  C 30.0.0.0/8 is directly connected, Serial3/0
  C 30.0.0.0/8 is directly connected, Serial3/0
  C 40.0.0.0/8 is directly connected, FastEthernet0/0

Router#
```

PING COMMAND:



The screenshot shows a Packet Tracer PC Command Line window for a device named 100.0.1. The window has tabs for Physical, Config, Desktop, and Custom Interface. The Command Prompt is open, displaying the results of a ping command to 40.0.0.1. The output shows two successful ping attempts. The first attempt shows a request timed out, followed by three successful replies with round trip times of 10ms, 10ms, and 10ms. The statistics for the first attempt show 4 packets sent, 4 received, 0 lost, and an average round trip time of 10ms. The second attempt shows four successful replies with round trip times of 10ms, 10ms, 10ms, and 10ms. The statistics for the second attempt show 4 packets sent, 4 received, 0 lost, and an average round trip time of 10ms.

```
Packet Tracer PC Command Line 1.0
PC>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.1: bytes=32 time=10ms TTL=128
Reply from 40.0.0.1: bytes=32 time=10ms TTL=128
Reply from 40.0.0.1: bytes=32 time=10ms TTL=128

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 10ms, Maximum = 10ms, Average = 10ms

PC>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Reply from 40.0.0.1: bytes=32 time=10ms TTL=128
Reply from 40.0.0.1: bytes=32 time=10ms TTL=128
Reply from 40.0.0.1: bytes=32 time=10ms TTL=128
Reply from 40.0.0.1: bytes=32 time=10ms TTL=128

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 10ms, Maximum = 10ms, Average = 10ms

PC>
```