

Name : J S MEGHANA

USN :1BM18CS039

Section : A

Batch : A2

Sem : 5

Cycle : 1

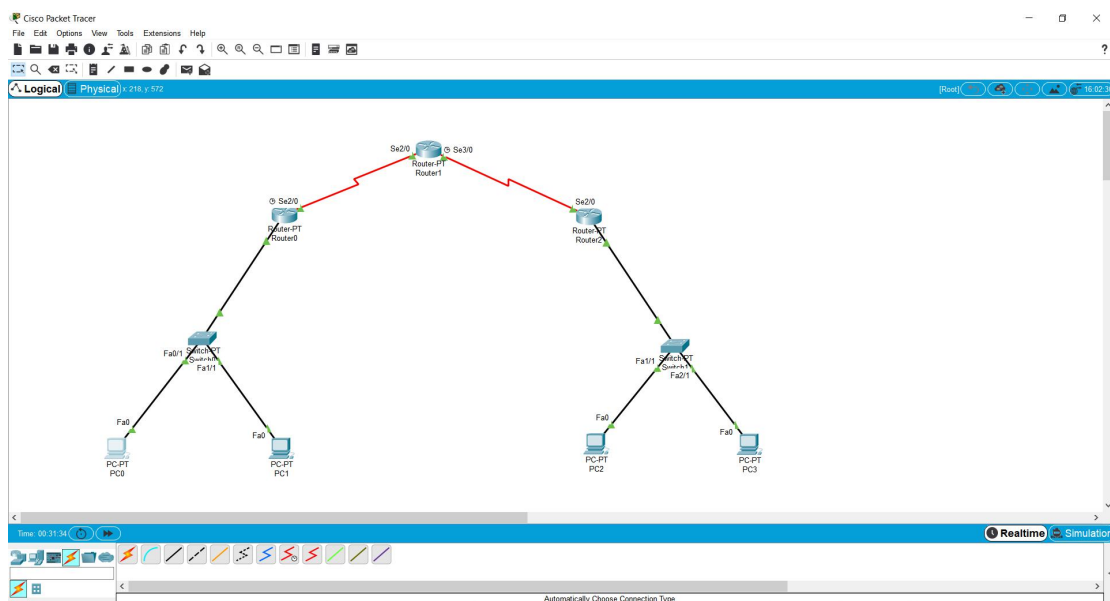
Experiment : 4

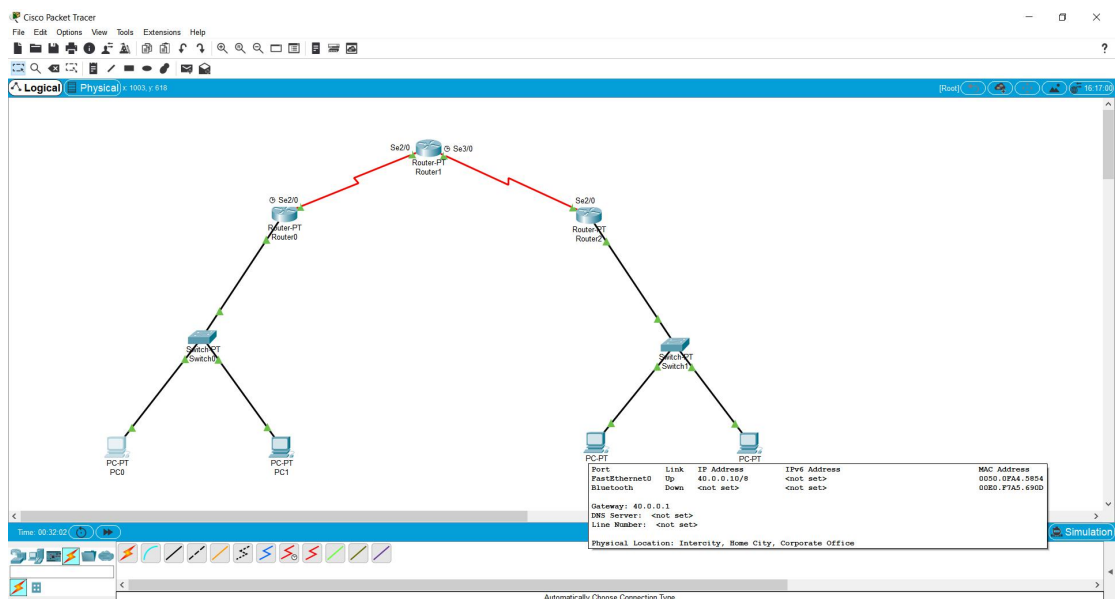
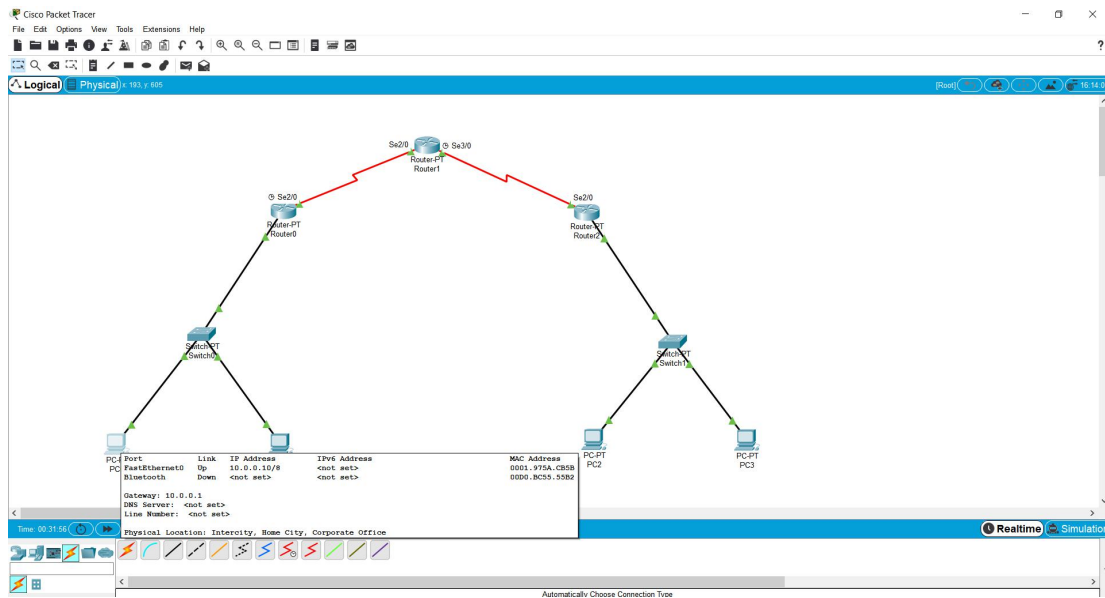
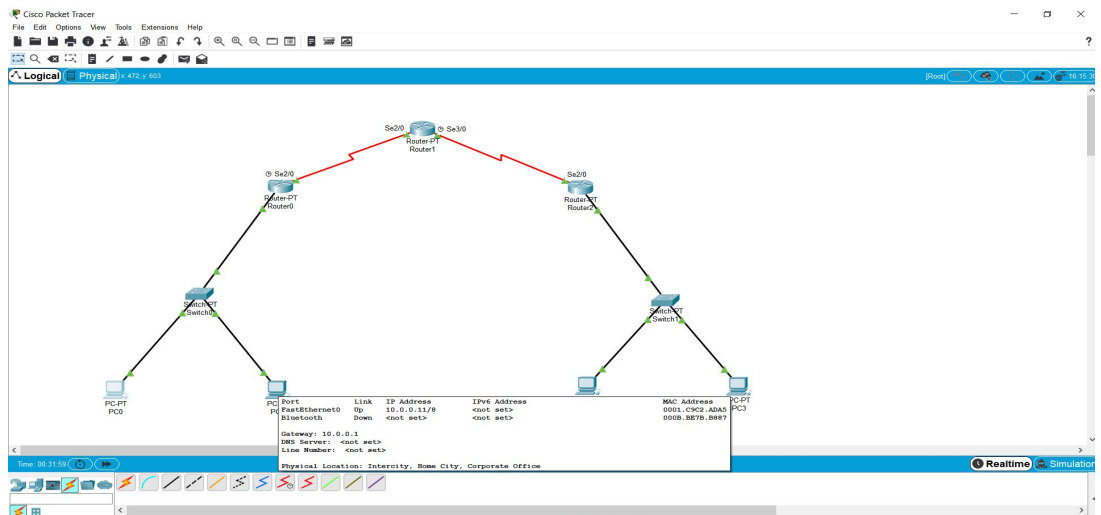
Aim : Configuring DHCP within a LAN in a packet Tracer

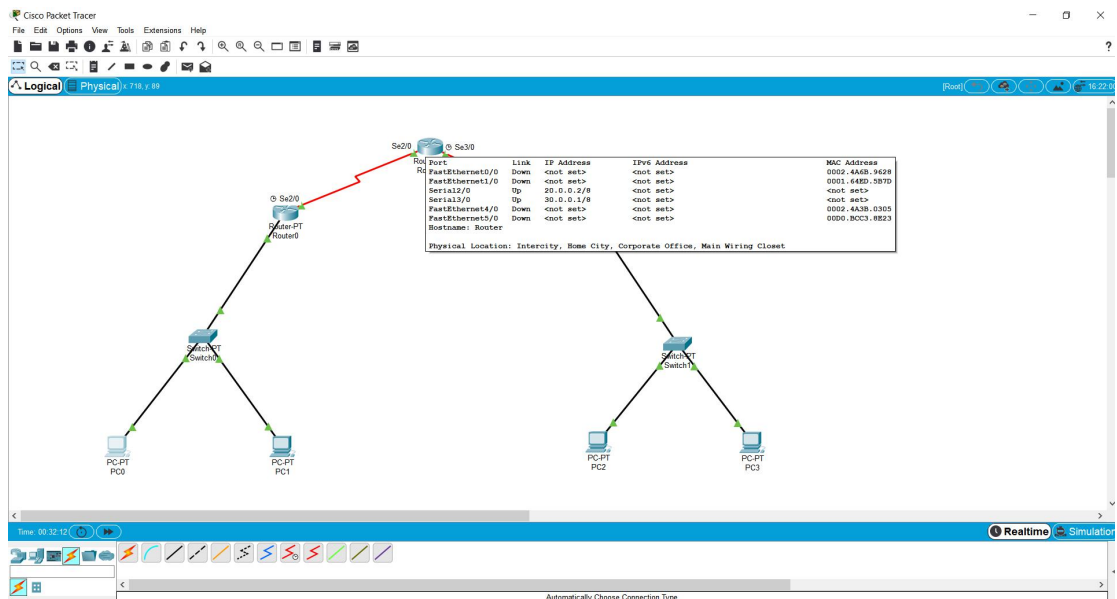
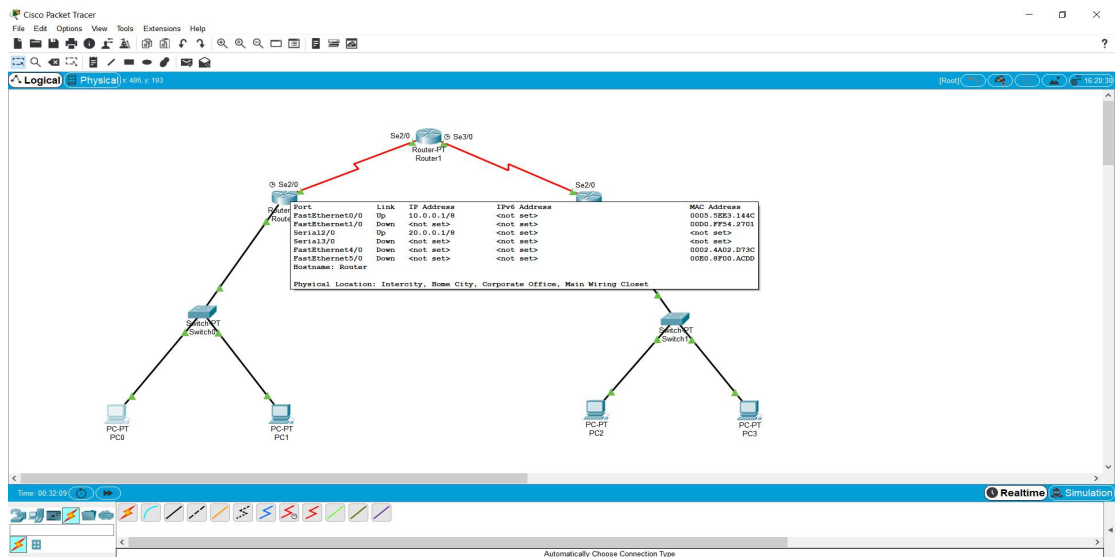
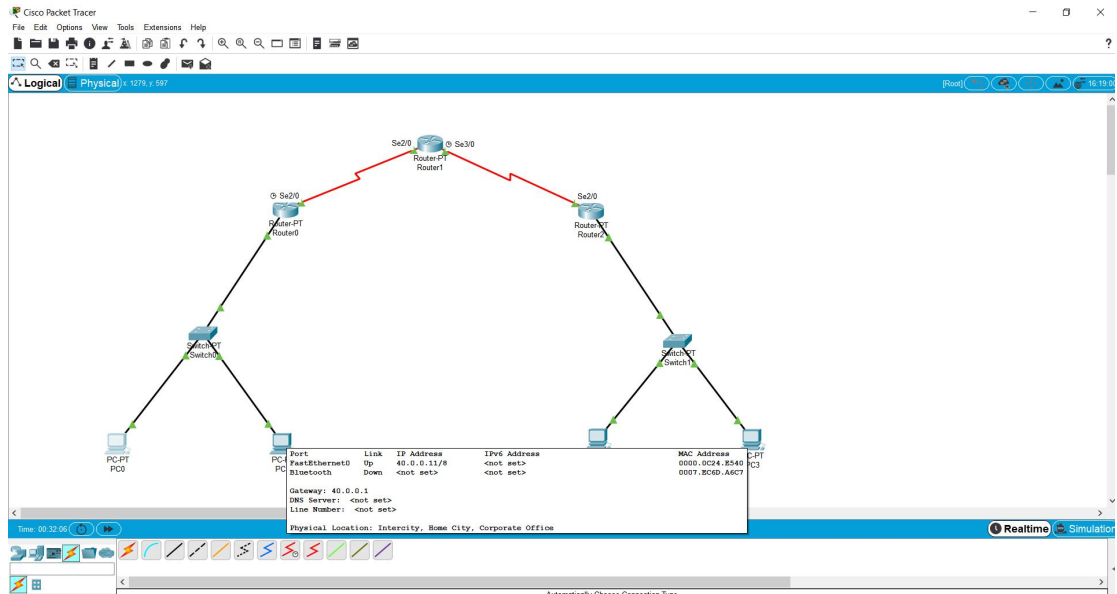
Hardware Required :

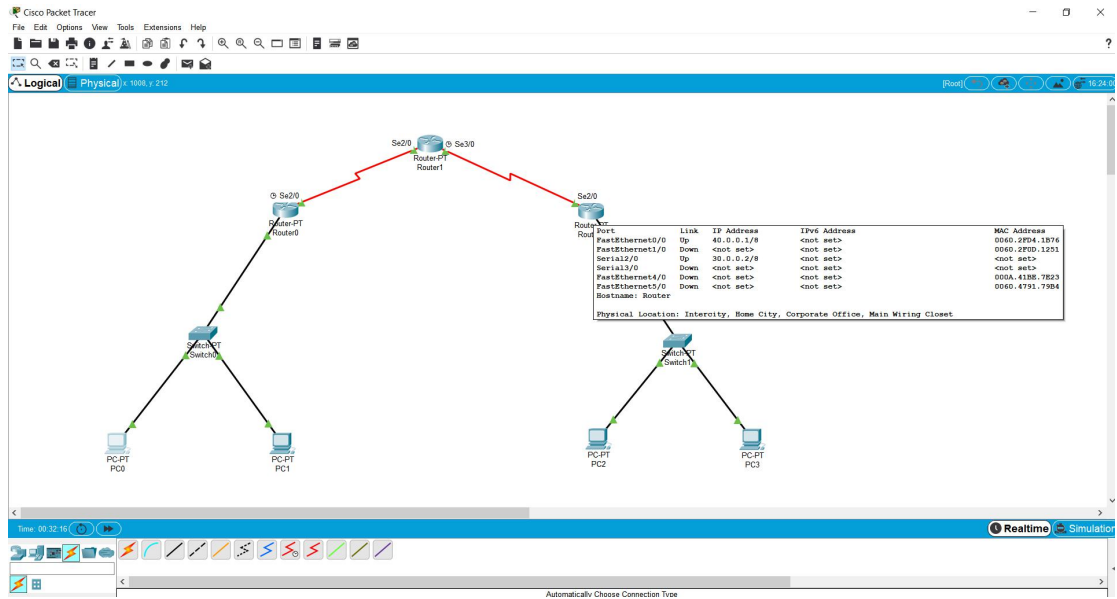
1. Router(three)
2. Switch(two)
3. Pc's (four)

Topology :









Router0

Physical Config Attributes

IOS Command Line Interface

```

--- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]: n

Press RETURN to get started!

Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 10.0.0.1 255.0.0.0
Router(config-if)#no shutdown

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

Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 20.0.0.1 255.0.0.0
Router(config-if)#no shutdown

ALINK-5-CHANGED: Interface Serial2/0, changed state to down
Router(config-if)#exit
ALINK-5-CHANGED: Interface Serial2/0, changed state to up
ALINKPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config)#exit
Router#
RTSP-5-CONFIG_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, 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 10.0.0.0/8 is directly connected, FastEthernet0/0
C 20.0.0.0/8 is directly connected, Serial2/0

Ctrl-F to exit CLI focus

```

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Router0

Physical Config Attributes

IOS Command Line Interface

```

Router(config-if)#no shutdown
ALINK-5-CHANGED: Interface Serial2/0, changed state to down
Router(config-if)#exit
Router(config)#
ALINK-5-CHANGED: Interface Serial2/0, changed state to up
ALINKPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config)#exit
Router#
RTSP-5-CONFIG_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, 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 20.0.0.2 to network 0.0.0.0

C 10.0.0.0/8 is directly connected, FastEthernet0/0
C 20.0.0.0/8 is directly connected, Serial2/0
R 0.0.0.0/0 [1/0] via 20.0.0.2

Router#
Ctrl-F to exit CLI focus

```

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```
Router1
Physical Config CLI Attributes
IOS Command Line Interface

--- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]: n

Press RETURN to get started!

Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Sca/0
Router(config-if)#ip address 20.0.0.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
LINK-5-CHANGED: Interface Serial2/0, changed state to up
Router(config-if)#exit
Router(config)#
Router(config)#interface Sca/0
Router(config-if)#ip address 30.0.0.1 255.0.0.0
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
Router(config-if)#exit
Router#
NSIS-5-CONFIG_1: 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, 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 20.0.0.0/8 is directly connected, Serial2/0
C 30.0.0.0/8 is directly connected, Serial3/0

Router#
Ctrl-F to exit CLI focus
```

```
Router1
Physical Config CLI Attributes
IOS Command Line Interface

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
Router(config-if)#exit
Router#
NSIS-5-CONFIG_1: 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, 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 20.0.0.0/8 is directly connected, Serial2/0
C 30.0.0.0/8 is directly connected, Serial3/0

Router#enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 20.0.0.0 255.0.0.0 30.0.0.1
Router(config)#ip route 40.0.0.0 255.0.0.0 30.0.0.2
Router(config)#exit
Router#
NSIS-5-CONFIG_1: 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, 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

S 10.0.0.0/8 [1/0] via 20.0.0.1
C 20.0.0.0/8 is directly connected, Serial2/0
C 30.0.0.0/8 is directly connected, Serial3/0
S 40.0.0.0/8 [1/0] via 30.0.0.2

Router#
Ctrl-F to exit CLI focus
```

```
Router2
Physical Config CLI Attributes
IOS Command Line Interface

--- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]: n

Press RETURN to get started!

Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Sca/0
Router(config-if)#ip address 30.0.0.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
LINK-5-CHANGED: Interface Serial2/0, changed state to up
Router(config-if)#exit
Router(config)#
Router(config)#interface Sca/0
Router(config-if)#ip address 40.0.0.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
Router(config-if)#exit
Router(config)#
Router(config)#
Router#
NSIS-5-CONFIG_1: 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, 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 20.0.0.0/8 is directly connected, Serial2/0
C 40.0.0.0/8 is directly connected, FastEthernet0/0

Router#
Ctrl-F to exit CLI focus
```

Router2

Physical Config CLI Attributes

IOS Command Line Interface

```
Router(config-if)#
*LINE-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)#
Router(config)#exit
Router#
N312-5-CORRIG_1: 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 - EGP
       * - 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    30.0.0.0/8 is directly connected, Serial2/0
C    40.0.0.0/8 is directly connected, FastEthernet0/0

Router#enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 0.0.0.0 0.0.0.0 30.0.0.1
Router(config)#exit
Router#
N313-5-CORRIG_1: 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 - EGP
       * - 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 30.0.0.1 to network 0.0.0.0

C    30.0.0.0/8 is directly connected, Serial2/0
C    40.0.0.0/8 is directly connected, FastEthernet0/0
S*   0.0.0.0/0 [1/0] via 30.0.0.1

Router#
```

Ctrl+F6 to exit CLI focus

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Top

PC0

Physical Config Desktop Programming Attributes

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ipconfig

FastEthernet0 Connection:(default port)

    Link-local IPv6 Address.....: FE80::201:97FF:FE5A:CB5B
    IP Address.....: 10.0.0.10
    Subnet Mask.....: 255.0.0.0
    Default Gateway.....: 10.0.0.1

Bluetooth Connection:

    Link-local IPv6 Address.....: ::
    IP Address.....: 0.0.0.0
    Subnet Mask.....: 0.0.0.0
    Default Gateway.....: 0.0.0.0

C:\>ping 40.0.0.10

Pinging 40.0.0.10 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.10: bytes=32 time=13ms TTL=125
Reply from 40.0.0.10: bytes=32 time=14ms TTL=125
Reply from 40.0.0.10: bytes=32 time=12ms TTL=125

Ping statistics for 40.0.0.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 12ms, Maximum = 14ms, Average = 13ms

C:\>
```

Top