R1#conf t

Enter configuration commands, one per line. End with CNTL/Z.

R1(config)#int f0/0

R1(config-if)#ip address 192.168.1.1 255.255.255.0

R1(config-if)#no shut

R1(config-if)#

\*Mar 1 00:03:11.115: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up

\*Mar 1 00:03:12.115: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

R1(config-if)#exit

R1(config)#int s0/0

R1(config-if)#ip address 192.168.3.1 255.255.255.252

R1(config-if)#no shut

R1(config-if)#

\*Mar 1 00:03:42.579: %LINK-3-UPDOWN: Interface Serial0/0, changed state to up

\*Mar 1 00:03:43.579: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up

R1(config-if)#exit

R1(config)#ip dhcp pool p1

R1(dhcp-config)#network 192.168.1.0 255.255.255.0

R1(dhcp-config)#default-router 192.168.1.1

R1(dhcp-config)#exit

\*Mar 1 00:04:12.975: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to down

R1(dhcp-config)#exit

R1(config)#

\*Mar 1 00:05:42.967: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up

R1(config)#router rip

R1(config-router)#network 192.168.1.0

R1(config-router)#network 192.168.2.0

R1(config-router)#network 192.168.3.0

R1(config-router)#network 192.168.4.0

R1(config-router)#ver 2

R1(config-router)#exit

R1(config)#exit

R1#

\*Mar 1 00:10:30.203: %SYS-5-CONFIG\_I: Configured from console by console

R1#show ip route

Codes: 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

i - IS-IS, su - IS-IS summary, 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 172.18.0.0/16 [120/2] via 192.168.3.2, 00:00:11, Serial0/0

R 192.168.4.0/24 [120/1] via 192.168.3.2, 00:00:11, Serial0/0

C 192.168.1.0/24 is directly connected, FastEthernet0/0

R 192.168.2.0/24 [120/1] via 192.168.3.2, 00:00:11, Serial0/0

192.168.3.0/30 is subnetted, 1 subnets

C 192.168.3.0 is directly connected, Serial0/0

R1#

------------------------------------------------------------------------------------------

R2#conf t

Enter configuration commands, one per line. End with CNTL/Z.

R2(config)#int f0/0

R2(config-if)#ip address 192.168.2.1 255.255.255.0

R2(config-if)#no shut

R2(config-if)#

\*Mar 1 00:05:01.003: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up

\*Mar 1 00:05:02.003: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

R2(config-if)#exit

R2(config)#int s0/0

R2(config-if)#ip address 192.168.3.2 255.255.255.252

R2(config-if)#no shut

R2(config-if)#

\*Mar 1 00:05:38.123: %LINK-3-UPDOWN: Interface Serial0/0, changed state to up

\*Mar 1 00:05:39.123: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up

R2(config)#int s0/1

R2(config-if)#ip address 192.168.4.1 255.255.255.252

R2(config-if)#no shut

R2(config-if)#exit

R2(config)#

\*Mar 1 00:21:33.391: %LINK-3-UPDOWN: Interface Serial0/1, changed state to up

\*Mar 1 00:21:34.391: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1, changed state to up

R2(config-if)#exit

R2(config)#ip dhcp pool p2

R2(dhcp-config)#network 192.168.2.0 255.255.255.0

R2(dhcp-config)#default-router 192.168.2.1

R2(dhcp-config)#exit

R2(config)#router rip

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)#ver 2

R2(config-router)#exit

R2(config)#exit

R2#show ip route

Codes: 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

i - IS-IS, su - IS-IS summary, 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

192.168.4.0/30 is subnetted, 1 subnets

C 192.168.4.0 is directly connected, Serial0/1

R 192.168.1.0/24 [120/1] via 192.168.3.1, 00:00:25, Serial0/0

C 192.168.2.0/24 is directly connected, FastEthernet0/0

192.168.3.0/30 is subnetted, 1 subnets

C 192.168.3.0 is directly connected, Serial0/0

R2#

---------------------------------------------------------------------------------

R3#conf t

Enter configuration commands, one per line. End with CNTL/Z.

R3(config)#int f0/0

R3(config-if)#ip address 172.18.2.1 255.255.255.0

R3(config-if)#no shut

R3(config-if)#ex

\*Mar 1 00:07:23.555: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up

\*Mar 1 00:07:24.555: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

R3(config-if)#exit

R3(config)#int f0/1

R3(config-if)#ip address 172.18.3.1 255.255.255.0

R3(config-if)#no shut

R3(config-if)#

\*Mar 1 00:07:43.403: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up

\*Mar 1 00:07:44.403: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

R3(config-if)#exit

R3(config)#int s0/0

R3(config-if)#ip address 192.168.3.2 255.255.255.252

R3(config-if)#no shut

R3(config-if)#

\*Mar 1 00:08:11.199: %LINK-3-UPDOWN: Interface Serial0/0, changed state to up

\*Mar 1 00:08:12.199: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up

R3(config-if)#

\*Mar 1 00:08:32.971: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to down

R3(config-if)#ip dhcp pool p3

R3(dhcp-config)#network 172.18.2.0 255.255.255.0

R3(dhcp-config)#default-router 172.18.2.1

R3(dhcp-config)#exit

R3(config)#ip dhcp pool p4

R3(dhcp-config)#network 172.18.3.0 255.255.255.0

R3(dhcp-config)#default-router 172.18.3.1

R3(dhcp-config)#exit

R3(config)#router rip

R3(config-router)#exit

R3(config)#exit

R3#conf

\*Mar 1 00:15:23.143: %SYS-5-CONFIG\_I: Configured from console by console

R3#conf t

Enter configuration commands, one per line. End with CNTL/Z.

R3(config)#int s0/1

R3(config-if)#ip address 192.168.4.1 255.255.255.252

R3(config-if)#no shut

R3(config-if)#exit

R3(config)#

\*Mar 1 00:15:51.371: %LINK-3-UPDOWN: Interface Serial0/1, changed state to up

\*Mar 1 00:15:52.371: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1, changed state to up

R3(config)#

\*Mar 1 00:16:12.991: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1, changed state to down

R3(config)#router rip

R3(config-router)#network 172.18.2.0

R3(config-router)#network 172.18.3.0

R3(config-router)#network 192.168.4.0

R3(config-router)#exit

R3(config)#exit

R3#show u

\*Mar 1 00:17:40.815: %SYS-5-CONFIG\_I: Configured from console by console

R3#show ip route

Codes: 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

i - IS-IS, su - IS-IS summary, 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

172.18.0.0/24 is subnetted, 2 subnets

C 172.18.2.0 is directly connected, FastEthernet0/0

C 172.18.3.0 is directly connected, FastEthernet0/1

R3#conf t

Enter configuration commands, one per line. End with CNTL/Z.

R3(config)#router rip

R3(config-router)#network 192.168.3.1

R3(config-router)#ver 2

R3(config-router)#exit

R3(config)#exit

R3#

\*Mar 1 00:19:31.411: %SYS-5-CONFIG\_I: Configured from console by console

R3#show ip route

Codes: 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

i - IS-IS, su - IS-IS summary, 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

172.18.0.0/24 is subnetted, 2 subnets

C 172.18.2.0 is directly connected, FastEthernet0/0

C 172.18.3.0 is directly connected, FastEthernet0/1

R3#conf t

Enter configuration commands, one per line. End with CNTL/Z.

R3(config)#router rip

R3(config-router)#network 192.168.3.0

R3(config-router)#ver 2

R3(config-router)#exit

R3(config)#exit

R3#

\*Mar 1 00:20:11.903: %SYS-5-CONFIG\_I: Configured from console by console

R3#show ip route

Codes: 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

i - IS-IS, su - IS-IS summary, 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

172.18.0.0/24 is subnetted, 2 subnets

C 172.18.2.0 is directly connected, FastEthernet0/0

C 172.18.3.0 is directly connected, FastEthernet0/1

R3#

\*Mar 1 00:21:42.991: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1, changed state to up

R3#conf t

Enter configuration commands, one per line. End with CNTL/Z.

R3(config)#int s0/1

R3(config-if)#ip address 192.168.4.2 255.255.255.252

R3(config-if)#no shut

R3(config-if)#exit

R3(config)#router rip

R3(config-router)#network 192.168.4.0

R3(config-router)#ver 2

R3(config-router)#exit

R3(config)#exit

R3#show i

\*Mar 1 00:24:19.143: %SYS-5-CONFIG\_I: Configured from console by console

R3#show ip route

Codes: 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

i - IS-IS, su - IS-IS summary, 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

172.18.0.0/24 is subnetted, 2 subnets

C 172.18.2.0 is directly connected, FastEthernet0/0

C 172.18.3.0 is directly connected, FastEthernet0/1

192.168.4.0/30 is subnetted, 1 subnets

C 192.168.4.0 is directly connected, Serial0/1

R 192.168.1.0/24 [120/2] via 192.168.4.1, 00:00:26, Serial0/1

R 192.168.2.0/24 [120/1] via 192.168.4.1, 00:00:26, Serial0/1

R 192.168.3.0/24 [120/1] via 192.168.4.1, 00:00:26, Serial0/1

R3#

------------------------------------------------------------------------

PC1> ip dhcp

DDORA IP 192.168.1.2/24 GW 192.168.1.1

PC1> show ip

NAME : PC1[1]

IP/MASK : 192.168.1.2/24

GATEWAY : 192.168.1.1

DNS :

DHCP SERVER : 192.168.1.1

DHCP LEASE : 86373, 86400/43200/75600

MAC : 00:50:79:66:68:00

LPORT : 10044

RHOST:PORT : 127.0.0.1:10045

MTU: : 1500

PC1> ping 192.168.2.2

192.168.2.2 icmp\_seq=1 timeout

192.168.2.2 icmp\_seq=2 timeout

84 bytes from 192.168.2.2 icmp\_seq=3 ttl=62 time=75.360 ms

84 bytes from 192.168.2.2 icmp\_seq=4 ttl=62 time=75.409 ms

84 bytes from 192.168.2.2 icmp\_seq=5 ttl=62 time=60.791 ms

PC1> ping 172.18.2.3

172.18.2.3 icmp\_seq=1 timeout

172.18.2.3 icmp\_seq=2 timeout

84 bytes from 172.18.2.3 icmp\_seq=3 ttl=61 time=75.428 ms

84 bytes from 172.18.2.3 icmp\_seq=4 ttl=61 time=105.384 ms

84 bytes from 172.18.2.3 icmp\_seq=5 ttl=61 time=75.566 ms

PC1>

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PC2> ip dhcp

DDORA IP 192.168.1.3/24 GW 192.168.1.1

PC2> show ip

NAME : PC2[1]

IP/MASK : 192.168.1.3/24

GATEWAY : 192.168.1.1

DNS :

DHCP SERVER : 192.168.1.1

DHCP LEASE : 86374, 86400/43200/75600

MAC : 00:50:79:66:68:01

LPORT : 10046

RHOST:PORT : 127.0.0.1:10047

MTU: : 1500

PC2> ping 192.168.2.3

192.168.2.3 icmp\_seq=1 timeout

192.168.2.3 icmp\_seq=2 timeout

84 bytes from 192.168.2.3 icmp\_seq=3 ttl=62 time=75.542 ms

84 bytes from 192.168.2.3 icmp\_seq=4 ttl=62 time=60.397 ms

84 bytes from 192.168.2.3 icmp\_seq=5 ttl=62 time=60.352 ms

PC2>

------------------------------------------------------------

PC3> ip dhcp

DDORRA IP 172.18.2.2/24 GW 172.18.2.1

PC3> show ip

NAME : PC3[1]

IP/MASK : 172.18.2.2/24

GATEWAY : 172.18.2.1

DNS :

DHCP SERVER : 172.18.2.1

DHCP LEASE : 86374, 86400/43200/75600

MAC : 00:50:79:66:68:02

LPORT : 10048

RHOST:PORT : 127.0.0.1:10049

MTU: : 1500

PC3> ping 192.168.1.2

192.168.1.2 icmp\_seq=1 timeout

192.168.1.2 icmp\_seq=2 timeout

84 bytes from 192.168.1.2 icmp\_seq=3 ttl=61 time=106.595 ms

84 bytes from 192.168.1.2 icmp\_seq=4 ttl=61 time=75.538 ms

84 bytes from 192.168.1.2 icmp\_seq=5 ttl=61 time=90.299 ms

PC3>

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PC4> show ip

NAME : PC4[1]

IP/MASK : 172.18.2.3/24

GATEWAY : 172.18.2.1

DNS :

DHCP SERVER : 172.18.2.1

DHCP LEASE : 86374, 86400/43200/75600

MAC : 00:50:79:66:68:03

LPORT : 10050

RHOST:PORT : 127.0.0.1:10051

MTU: : 1500

PC4> ping 192.168.2.2

192.168.2.2 icmp\_seq=1 timeout

192.168.2.2 icmp\_seq=2 timeout

84 bytes from 192.168.2.2 icmp\_seq=3 ttl=62 time=60.594 ms

84 bytes from 192.168.2.2 icmp\_seq=4 ttl=62 time=60.378 ms

84 bytes from 192.168.2.2 icmp\_seq=5 ttl=62 time=60.390 ms

PC4> ping 192.168.1.2

192.168.1.2 icmp\_seq=1 timeout

192.168.1.2 icmp\_seq=2 timeout

84 bytes from 192.168.1.2 icmp\_seq=3 ttl=61 time=75.856 ms

84 bytes from 192.168.1.2 icmp\_seq=4 ttl=61 time=75.464 ms

84 bytes from 192.168.1.2 icmp\_seq=5 ttl=61 time=75.579 ms

PC4>

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PC5> ip dhcp

DDORRA IP 172.18.3.2/24 GW 172.18.3.1

PC5> show ip

NAME : PC5[1]

IP/MASK : 172.18.3.2/24

GATEWAY : 172.18.3.1

DNS :

DHCP SERVER : 172.18.3.1

DHCP LEASE : 86375, 86400/43200/75600

MAC : 00:50:79:66:68:04

LPORT : 10052

RHOST:PORT : 127.0.0.1:10053

MTU: : 1500

PC5> ping 192.168.1.3

192.168.1.3 icmp\_seq=1 timeout

192.168.1.3 icmp\_seq=2 timeout

84 bytes from 192.168.1.3 icmp\_seq=3 ttl=61 time=90.594 ms

84 bytes from 192.168.1.3 icmp\_seq=4 ttl=61 time=90.591 ms

84 bytes from 192.168.1.3 icmp\_seq=5 ttl=61 time=90.483 ms

PC5>

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PC6> ip dhcp

DDORA IP 172.18.3.3/24 GW 172.18.3.1

PC6> show ip

NAME : PC6[1]

IP/MASK : 172.18.3.3/24

GATEWAY : 172.18.3.1

DNS :

DHCP SERVER : 172.18.3.1

DHCP LEASE : 86374, 86400/43200/75600

MAC : 00:50:79:66:68:05

LPORT : 10054

RHOST:PORT : 127.0.0.1:10055

MTU: : 1500

PC6> ping 192.168.1.2

192.168.1.2 icmp\_seq=1 timeout

192.168.1.2 icmp\_seq=2 timeout

84 bytes from 192.168.1.2 icmp\_seq=3 ttl=61 time=91.446 ms

84 bytes from 192.168.1.2 icmp\_seq=4 ttl=61 time=105.648 ms

84 bytes from 192.168.1.2 icmp\_seq=5 ttl=61 time=75.419 ms

PC6> ping 192.168.2.3

192.168.2.3 icmp\_seq=1 timeout

192.168.2.3 icmp\_seq=2 timeout

84 bytes from 192.168.2.3 icmp\_seq=3 ttl=62 time=61.329 ms

84 bytes from 192.168.2.3 icmp\_seq=4 ttl=62 time=75.649 ms

84 bytes from 192.168.2.3 icmp\_seq=5 ttl=62 time=61.945 ms

PC6>

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PC7> ip dhcp

DDORRA IP 192.168.2.2/24 GW 192.168.2.1

PC7> show ip

NAME : PC7[1]

IP/MASK : 192.168.2.2/24

GATEWAY : 192.168.2.1

DNS :

DHCP SERVER : 192.168.2.1

DHCP LEASE : 86377, 86400/43200/75600

MAC : 00:50:79:66:68:06

LPORT : 10056

RHOST:PORT : 127.0.0.1:10057

MTU: : 1500

PC7> ping 192.168.1.2

84 bytes from 192.168.1.2 icmp\_seq=1 ttl=62 time=60.142 ms

84 bytes from 192.168.1.2 icmp\_seq=2 ttl=62 time=60.318 ms

84 bytes from 192.168.1.2 icmp\_seq=3 ttl=62 time=75.446 ms

84 bytes from 192.168.1.2 icmp\_seq=4 ttl=62 time=75.949 ms

84 bytes from 192.168.1.2 icmp\_seq=5 ttl=62 time=60.734 ms

PC7>

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PC8> ip dhcp

DDORA IP 192.168.2.3/24 GW 192.168.2.1

PC8> show ip

NAME : PC8[1]

IP/MASK : 192.168.2.3/24

GATEWAY : 192.168.2.1

DNS :

DHCP SERVER : 192.168.2.1

DHCP LEASE : 86372, 86400/43200/75600

MAC : 00:50:79:66:68:07

LPORT : 10058

RHOST:PORT : 127.0.0.1:10059

MTU: : 1500

PC8> ping 192.168.2.3

192.168.2.3 icmp\_seq=1 ttl=64 time=0.001 ms

192.168.2.3 icmp\_seq=2 ttl=64 time=0.001 ms

192.168.2.3 icmp\_seq=3 ttl=64 time=0.001 ms

192.168.2.3 icmp\_seq=4 ttl=64 time=0.001 ms

192.168.2.3 icmp\_seq=5 ttl=64 time=0.001 ms

PC8> ping 192.168.1.3

192.168.1.3 icmp\_seq=1 timeout

192.168.1.3 icmp\_seq=2 timeout

84 bytes from 192.168.1.3 icmp\_seq=3 ttl=62 time=31.105 ms

84 bytes from 192.168.1.3 icmp\_seq=4 ttl=62 time=45.430 ms

84 bytes from 192.168.1.3 icmp\_seq=5 ttl=62 time=32.562 ms

PC8>

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