R1>en

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 not set

172.31.0.0/16 is variably subnetted, 4 subnets, 3 masks

C 172.31.1.0/25 is directly connected, GigabitEthernet0/0

L 172.31.1.1/32 is directly connected, GigabitEthernet0/0

C 172.31.1.192/30 is directly connected, Serial0/0/0

L 172.31.1.194/32 is directly connected, Serial0/0/0

R1#conf t

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

R1(config)#ip route 172.31.0.0 255.255.255.0 172.31.1.193

R1(config)#ip route 172.31.1.128 255.255.255.192 172.31.1.193

R1(config)#ip route 172.31.1.196 255.255.255.0 172.31.1.193

%Inconsistent address and mask

R1(config)#ip route 172.31.1.196 255.255.255.252 172.31.1.193

R1(config)#show ip route

^

% Invalid input detected at '^' marker.

R1(config)#exit

R1#

%SYS-5-CONFIG\_I: Configured from console by console

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 not set

172.31.0.0/16 is variably subnetted, 7 subnets, 5 masks

S 172.31.0.0/24 [1/0] via 172.31.1.193

C 172.31.1.0/25 is directly connected, GigabitEthernet0/0

L 172.31.1.1/32 is directly connected, GigabitEthernet0/0

S 172.31.1.128/26 [1/0] via 172.31.1.193

C 172.31.1.192/30 is directly connected, Serial0/0/0

L 172.31.1.194/32 is directly connected, Serial0/0/0

S 172.31.1.196/30 [1/0] via 172.31.1.193

R1#

R2>en

R2#conf t

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

R2(config)#ip route 172.31.1.0 255.255.255.128 s0/0/0

%Default route without gateway, if not a point-to-point interface, may impact performance

R2(config)#ip route 172.31.1.128 255.255.255.192 s0/0/1

%Default route without gateway, if not a point-to-point interface, may impact performance

R2(config)#

R2(config)#exit

R2#

%SYS-5-CONFIG\_I: Configured from console by console

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 not set

172.31.0.0/16 is variably subnetted, 8 subnets, 5 masks

C 172.31.0.0/24 is directly connected, GigabitEthernet0/0

L 172.31.0.1/32 is directly connected, GigabitEthernet0/0

S 172.31.1.0/25 is directly connected, Serial0/0/0

S 172.31.1.128/26 is directly connected, Serial0/0/1

C 172.31.1.192/30 is directly connected, Serial0/0/0

L 172.31.1.193/32 is directly connected, Serial0/0/0

C 172.31.1.196/30 is directly connected, Serial0/0/1

L 172.31.1.197/32 is directly connected, Serial0/0/1

R2#

R3>en

R3#conf t

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

R3(config)#ip route 0.0.0.0 0.0.0.0 s0/0/1

%Default route without gateway, if not a point-to-point interface, may impact performance

R3(config)#exit

R3#

%SYS-5-CONFIG\_I: Configured from console by console

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 0.0.0.0 to network 0.0.0.0

172.31.0.0/16 is variably subnetted, 4 subnets, 3 masks

C 172.31.1.128/26 is directly connected, GigabitEthernet0/0

L 172.31.1.129/32 is directly connected, GigabitEthernet0/0

C 172.31.1.196/30 is directly connected, Serial0/0/1

L 172.31.1.198/32 is directly connected, Serial0/0/1

S\* 0.0.0.0/0 is directly connected, Serial0/0/1

R3#