



R1

```
R1#sh ip route connected
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override
```

Gateway of last resort is not set

```
      10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       10.1.1.0/24 is directly connected, FastEthernet0/0
L       10.1.1.1/32 is directly connected, FastEthernet0/0
      12.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       12.1.1.0/24 is directly connected, FastEthernet4/0
L       12.1.1.1/32 is directly connected, FastEthernet4/0
      13.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       13.1.1.0/24 is directly connected, FastEthernet1/0
L       13.1.1.1/32 is directly connected, FastEthernet1/0
```

```
R1#sh ip route ospf
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override
```

Gateway of last resort is not set

R2

```
R2#sh ip route connected
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override
```

Gateway of last resort is not set

```
      1.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       1.1.1.0/24 is directly connected, FastEthernet0/0
L       1.1.1.1/32 is directly connected, FastEthernet0/0
      13.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       13.1.1.0/24 is directly connected, FastEthernet2/0
L       13.1.1.1/32 is directly connected, FastEthernet2/0
      14.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       14.1.1.0/24 is directly connected, FastEthernet1/0
L       14.1.1.1/32 is directly connected, FastEthernet1/0
```

```
R2#sh ip route ospf
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override
```

Gateway of last resort is not set

R3

```
R3#sh ip route connected
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override
```

Gateway of last resort is not set

```
1.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C      1.1.1.0/24 is directly connected, FastEthernet4/0
L      1.1.1.4/32 is directly connected, FastEthernet4/0
2.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
C      2.1.1.0/24 is directly connected, FastEthernet2/0
L      2.1.1.1/32 is directly connected, FastEthernet2/0
C      2.2.2.0/24 is directly connected, FastEthernet0/0
L      2.2.2.2/32 is directly connected, FastEthernet0/0
10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C      10.1.1.0/24 is directly connected, FastEthernet1/0
L      10.1.1.2/32 is directly connected, FastEthernet1/0
```

```
R3#sh ip route ospf
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override
```

Gateway of last resort is not set

R4

```
R4#sh ip route connected
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override
```

Gateway of last resort is not set

```
      15.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       15.1.1.0/24 is directly connected, FastEthernet1/0
L       15.1.1.1/32 is directly connected, FastEthernet1/0
      16.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       16.1.1.0/24 is directly connected, FastEthernet2/0
L       16.1.1.1/32 is directly connected, FastEthernet2/0
      17.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       17.1.1.0/24 is directly connected, FastEthernet3/0
L       17.1.1.1/32 is directly connected, FastEthernet3/0
      18.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       18.1.1.0/24 is directly connected, FastEthernet0/0
```

```
R4#sh ip route ospf
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override
```

Gateway of last resort is not set

R5

```
R5#sh ip route connected
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override
```

Gateway of last resort is not set

```
      19.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       19.1.1.0/24 is directly connected, FastEthernet1/0
L       19.1.1.1/32 is directly connected, FastEthernet1/0
      20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       20.1.1.0/24 is directly connected, FastEthernet2/0
L       20.1.1.1/32 is directly connected, FastEthernet2/0
      21.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       21.1.1.0/24 is directly connected, FastEthernet0/0
L       21.1.1.1/32 is directly connected, FastEthernet0/0
```

```
R5#sh ip route ospf
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override
```

Gateway of last resort is not set

R6

```
R6#sh ip route connected
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

    22.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       22.1.1.0/24 is directly connected, FastEthernet0/0
L       22.1.1.1/32 is directly connected, FastEthernet0/0
    23.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       23.1.1.0/24 is directly connected, FastEthernet1/0
L       23.1.1.1/32 is directly connected, FastEthernet1/0

R6#sh ip route ospf
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
       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, H - NHRP, l - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set
```