IGN200, november 2013



NIT

Skills Exam, CCNP Route

- Time: 2 hours, including 30 minutes of design
- Full connectivity is required
- Every character of "*show ip route*" and "*show ip bgp*" must match on your routers
- TIP:
  - R4# ping 172.16.1.1 source loopback 0
  - R1# trace 192.168.4.4 source loopback 0
  - You *might* use this command:
    neighbor X.Y.Z.W default-originate
  - R4# ping 2001:1::1 source loopback 6

R1

```
R1#show ip route

Gateway of last resort is 172.16.12.2 to network 0.0.0.0

O*IA  0.0.0.0/0 [110/2] via 172.16.12.2, 00:16:04, GigabitEthernet0/0
      172.16.0.0/16 is variably subnetted, 6 subnets, 3 masks
C        172.16.1.0/25 is directly connected, Loopback0
L        172.16.1.1/32 is directly connected, Loopback0
C        172.16.1.128/25 is directly connected, Loopback1
L        172.16.1.129/32 is directly connected, Loopback1
C        172.16.12.0/24 is directly connected, GigabitEthernet0/0
L        172.16.12.1/32 is directly connected, GigabitEthernet0/0
R1#
```

R2

```
R2# show ip route

Gateway of last resort is not set

     172.16.0.0/16 is variably subnetted, 8 subnets, 3 masks
O N2    172.16.1.128/25 [110/20] via 172.16.12.1, 00:16:46, FastEthernet0/0
C       172.16.23.0/24 is directly connected, FastEthernet0/1
C       172.16.12.0/24 is directly connected, FastEthernet0/0
O       172.16.1.0/25 [110/2] via 172.16.12.1, 00:13:51, FastEthernet0/0
O       172.16.3.0/24 [110/2] via 172.16.23.3, 00:16:00, FastEthernet0/1
C       172.16.120.0/24 is directly connected, Loopback120
O       172.16.120.0/23 is a summary, 00:16:46, Null0
C       172.16.121.0/24 is directly connected, Loopback121
S    192.168.0.0/16 [1/0] via 172.16.23.3
```

R3

```
R3# show ip route

Gateway of last resort is 192.168.43.4 to network 0.0.0.0

C    192.168.43.0/24 is directly connected, FastEthernet0/0
     172.16.0.0/16 is variably subnetted, 7 subnets, 4 masks
O E2    172.16.1.128/25 [110/20] via 172.16.23.2, 00:16:57, FastEthernet0/1
C       172.16.23.0/24 is directly connected, FastEthernet0/1
O IA    172.16.12.0/24 [110/2] via 172.16.23.2, 00:16:57, FastEthernet0/1
S       172.16.0.0/16 is directly connected, Null0
O IA    172.16.1.0/25 [110/3] via 172.16.23.2, 00:14:48, FastEthernet0/1
C       172.16.3.0/24 is directly connected, Loopback0
O IA    172.16.120.0/23 [110/2] via 172.16.23.2, 00:16:57, FastEthernet0/1
C    192.168.34.0/24 is directly connected, Serial0/1/0
B*   0.0.0.0/0 [20/0] via 192.168.43.4, 00:09:13
R3#show ip bgp
  Network          Next Hop            Metric LocPrf Weight Path
*  0.0.0.0          192.168.34.4             0     30      0 65400 i
*>                  192.168.43.4             0     40      0 65400 i
*> 172.16.0.0       0.0.0.0                  0         32768 i
```

R4

```
R4#show ip route

Gateway of last resort is not set

C    192.168.43.0/24 is directly connected, FastEthernet0/0
B    172.16.0.0/16 [20/10] via 192.168.43.3, 00:09:58
C    192.168.4.0/24 is directly connected, Loopback0
C    192.168.34.0/24 is directly connected, Serial0/0/0
R4#show ip bgp
   Network          Next Hop            Metric LocPrf Weight Path
*  172.16.0.0       192.168.34.3            20             0 65100 i
*>                  192.168.43.3            10             0 65100 i
```

R1#show ipv6 route

```
IPv6 Routing Table - default - 6 entries
Codes: C - Connected, L - Local, S - Static, U - Per-user Static route
       B - BGP, HA - Home Agent, MR - Mobile Router, R - RIP
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       D - EIGRP, EX - EIGRP external, NM - NEMO, ND - Neighbor Discovery
       l - LISP
       O - OSPF Intra, OI - OSPF Inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
      ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2

C   2001:1::/64 [0/0]
     via Loopback6, directly connected
L   2001:1::1/128 [0/0]
     via Loopback6, receive
R   2001:4::/64 [120/2]
     via FE80::C0A8:404, Tunnel0
C   2001:14::/64 [0/0]
     via Tunnel0, directly connected
L   2001:14::1/128 [0/0]
     via Tunnel0, receive
L   FF00::/8 [0/0]
     via Null0, receive
R1#
```

R1

R4#show ipv6 route

```
IPv6 Routing Table - Default - 6 entries
Codes: C - Connected, L - Local, S - Static, U - Per-user Static route
       B - BGP, HA - Home Agent, MR - Mobile Router, R - RIP
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       D - EIGRP, EX - EIGRP external
       O - OSPF Intra, OI - OSPF Inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2

R   2001:1::/64 [120/2]
     via FE80::AC10:101, Tunnel0
C   2001:4::/64 [0/0]
     via Loopback6, directly connected
L   2001:4::4/128 [0/0]
     via Loopback6, receive
C   2001:14::/64 [0/0]
     via Tunnel0, directly connected
L   2001:14::4/128 [0/0]
     via Tunnel0, receive
L   FF00::/8 [0/0]
     via Null0, receive
R4#
```

R4

Titta INTE !!! Hemligt facit finns nedan med vita bokstäver