OSPF area 42
stub

Loopback 120: 172.16.8.1/23

Broken Image

Fa 0/0

R2

Fa 0/1

.2

OSPF area 0

.2

172.16.23.0/24

Fa 0/1

.3

EIGRP
AS 65100

VLAN 1:
172.16.12.0/24

R3

Loopback 0:
172.16.33.1/25

Gi 0/0   .1

Serial 0/1/0   .3   .3
                        s0/1/1

R1

Loopback 10: 10.11.12.13/24
Loopback 11: 172.16.1.32/25
Loopback 12: 172.16.1.134/25

T1
192.168.34.0/24

T3
192.168.43.0/24

BGP AS 65100 (cnap.se)

BGP AS 65404 (isp.net)

Ser 0/0/0
.4

.4
Ser 0/0/1

R4

Loopback 1: 192.168.4.1/24

Loopback 2: 172.17.4.1/24

REQUIREMENTS
0. Do basic configuration: no ip domain-lookup, passwords, description (including bgp neighbor XX description) etc
1. Configure according to the diagram shown above.
2. Disable auto-summary in EIGRP.
3. Configure passive and non-passive interfaces for EIGRP as appropriate, including loopbacks.
4. Summarize IPv4-addresses on R1 in EIGRP as efficient as possible, without including other networks
5. Create a static default route on R1.

6. Configure OSPF router ID.
7. Ensure that all loopback interfaces are advertised in OSPF with the correct masks.
8. Configure passive and non-passive interfaces for OSPF as appropriate including loopbacks.
9. Redistribute EIGRP onto OSPF with a metric of 500

10. Configure R3 to be in BGP AS 65100 and R4 to be in BGP AS 65404 .
11. Peer appropriately on R3 and R4 using BGP.
12. Advertise R4's loopback 1 interface into BGP.
13. Make BGP on R3 advertise the 172.16.0.0/16 network.
14. Make AS 65100 prefer the T3 link to AS 65404 networks by modifying the LocalPreference on R3.
15. Make AS 65404 prefer the T3 link to AS 65100 networks by modifying the MED on R3.

16. Make BGP on R4 send to all peers a default route, using: **neighbor x.x.x.x default-originate**
17. Configure R3 to send this default-route to R2, using OSPF .

18. Configure IPv6 addresses on the R1-R2 link and on all loopbacks on R1.
19. Configure dynamic IPv6 routing on R1 and R2.

SOME CHECKPOINT
A) On R1: ping 192.168.4.1 source 172.16.1.32
B) On R4: ping 172.16.1.134 source 172.17.4.1
C) No explicit static routes, no redistribution (except EIGRP into OSPF on R2)
but implicit rules are OK like
  "ip route 0.0.0.0 ???? ????" and
  "ip route ???? ???? null 0"
D) On R2: ping all R1's loopback-interfaces using IPv6