

Procedure

-
- The diagram illustrates a multi-AS network topology. It features four Autonomous Systems (ASes) and their internal components:
- AS 980:** Contains routers R16, R15, and R17. R16 is connected to R15 (f0/0 to f0/0, s0/1 to s0/0). R15 is connected to R17 (f0/0 to f0/0, s0/2 to s0/0). R16 is also connected to R17 (f0/1 to f0/0).
 - AS 38500:** Contains routers R11, R9, R10, and R7. R11 is connected to R9 (f1/0 to f0/1, f0/0 to f0/0) and R10 (f1/0 to f0/1, f0/0 to f0/0). R9 is connected to R7 (f0/0 to f0/0, s0/2 to s0/0). R10 is connected to R7 (f0/0 to f0/0, s0/2 to s0/0).
 - AS 58950:** Contains routers R13, R12, R14, and R8. R13 is connected to R12 (f0/0 to f0/0, s0/1 to s0/0) and R14 (f0/0 to f0/0, s0/1 to s0/0). R12 is connected to R14 (f0/1 to f0/1, s0/0 to s0/0). R13 is also connected to R14 (f1/0 to f1/0).
 - AS 5400:** The largest AS, containing multiple VLANs and devices.
 - VLAN 900:** Contains PC9 and VPCS9 connected to R6 (e0 to e0, f1/0 to f1/0).
 - VLAN 40:** Contains PC10 and VPCS10 connected to R5 (e0 to e0, f0/1 to f0/0).
 - VLAN 10, 20, 30:** Connected to R1. R1 is connected to ESW1 (f0/0 to f1/0, s0/0 to f1/1). ESW1 is connected to PC1, PC2, and PC3 (f1/2 to e0, f1/3 to e0).
 - VLAN 100, 200:** Connected to R2. R2 is connected to ESW2 (f1/0 to f1/0, s0/1 to f1/1). ESW2 is connected to PC4 and PC5 (f1/2 to e0, f1/1 to e0).
 - VLAN 600, 700, 800:** Connected to R3. R3 is connected to ESW3 (f1/0 to f1/0, s0/0 to f1/1). ESW3 is connected to PC6, PC7, and PC8 (f1/2 to e0, f1/3 to e0).
 - Core Routers:** R4 is the central router in AS 5400, connected to R6, R5, R1, R2, and R3. R4 is also connected to R7 (AS 38500) and R8 (AS 58950).
- The diagram shows the internal structure of each AS and the external connections between them, illustrating a complex multi-AS network topology.

CECS 474 COMPUTER NETWORKING INTEROPERABILITY

3. Implement EIGRP as the IGP for AS 980, AS 38500, and AS 58950. Leave OSPF in AS 5400.
4. Implement BGP in routers 4, 7, 8, and 15 (see IOS command ref sheet 3)
5. Create multiple loopbacks in the routers within AS 980, AS 38500, and AS 58950 as suggested in the following table

R9	172.16.0.100/32		R13	13.0.0.13/32
R9	172.20.0.1/32		R14	14.0.0.14/32
R10	172.18.0.200/32		R14	14.14.14.14/32
R11	172.25.0.1/32		R16	192.168.168.1/32
R11	172.30.0.1/32		R17	192.168.254.1/32
R12	170.0.12/32		R17	199.0.0.1/32

6. Make sure you can ping all network from all locations

Stop Here. Save your configuration. Shut down all the devices in the topology and make a copy of it (you could "Save As" file name: Lab6_3). Zip the project folder and upload it in the dropbox in beachbaord.