

CCIE Enterprise Infrastructure v1.0 Bootcamp Labs - EIGRP

1. EIGRP Autonomous System Mode
 - 1.1. Configure EIGRP in Autonomous System Mode using AS 10 on R10, R11, R12, and SW1 and enable EIGRP on the 165.1.0.0 network.
 - 1.2. Advertise the Loopback0 networks into EIGRP.
 - 1.3. Once complete you should have IP reachability between these four devices.
2. EIGRP Named Mode
 - 2.1. Configure EIGRP process named CCIE on all other devices in the network, and enable EIGRP on all their physical interfaces.
 - 2.2. Advertise the Loopback0 networks into EIGRP.
 - 2.3. Once complete you should have full reachability throughout the entire topology.
3. EIGRP Authentication
 - 3.1. Configure R14 to authenticate R8 with the MD5 string CISCO.
 - 3.2. As of Jan 1 2025 the password should automatically rotate to the string CISCO1.
 - 3.3. Configure R14 to authenticate R13 with the SHA key CISCOSHA.
4. EIGRP Feasible Successors
 - 4.1. Configure the network so that R13 load balances traffic to R9 between R14 and R4.
5. EIGRP Summarization
 - 5.1. Configure R10 to advertise a single summary of the Loopback0 networks of R10, R11, and R12 to the rest of the network.
6. EIGRP Summarization with Traffic Engineering
 - 6.1. Modify the summarization configuration so that traffic to R11's Loopback0 network is preferred to enter via R10's link to R13.
7. EIGRP over DMVPN
 - 7.1. R7 and R8 are the DMVPN Hubs, R10, R11, R12, and R13 are the spokes.
 - 7.2. Enable EIGRP AS 65535 over the DMVPN, and advertise the Loopback1 interfaces of these devices into EIGRP.
 - 7.3. Once complete you should have a full mesh of connectivity between the Loopback1 interfaces without having to transit through the hubs.
8. EIGRP Filtering
 - 8.1. Modify the EIGRP network so that SW6's Loopback0 is only reachable via R9 and the DMVPN Hubs and Spokes.

9. EIGRP Load Balancing

- 9.1. Advertise the link between R10 and R13 into the EIGRP DMVPN process.
- 9.2. R11 and R12 should be able to use both R10 and R13 to reach this prefix over the DMVPN.

10. IPv6 EIGRP

- 10.1. Enable IPv6 EIGRP on all nodes and all interfaces with the exception of the DMVPN.
- 10.2. Once complete you should be able to reach the IPv6 Loopback0 of all devices in the topology.