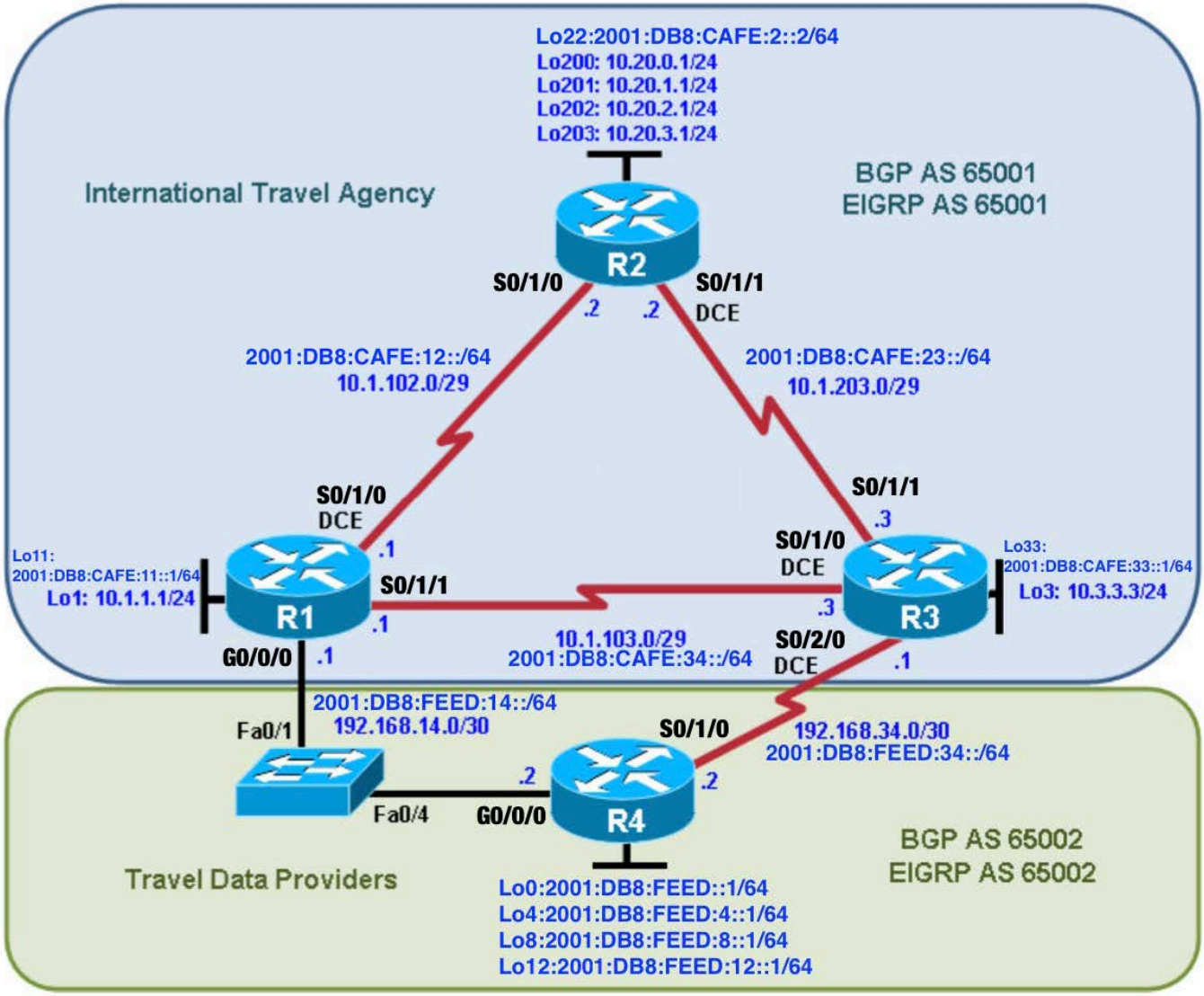
BGP Case Study

Topology



Objectives

- Plan, design, and implement the International Travel Agency core network.
- Plan, design, and implement the Travel Data Providers network.
- Allow the networks to communicate via BGP.
- Verify that all implementations are operational and functional according to the guidelines.

Requirements

1. Use the addressing scheme shown in the diagram.
2. Configure the ITA network to be in EIGRP AS 65001.
3. Configure the TDP network to be in EIGRP AS 65002.
4. Disable automatic summarization in both EIGRP domains.
5. Configure the ITA network to be in BGP AS 65001, and the TDP network to be in BGP AS 65002.
6. Advertise the 2001:DB8:FEED:14::/64, 2001:DB8:FEED:34::/64, 192.168.14.0/30 and 192.168.34.0/30 networks in both EIGRP autonomous systems.
7. Configure the interfaces on the border routers between the two EIGRP autonomous systems, so they do not send EIGRP packets.
8. All routers will be participating in BGP. Configure all routers for a full mesh of IBGP peers in each system.
9. Peer R1 and R2 using loopback addresses, not their directly connected interfaces.
10. Advertise all loopback interfaces into the BGP process, except on R2, where the only loopback advertised should be loopback 22.
11. On R2, create a static summary route for the rest of its loopback interfaces and advertise this static route in BGP.
12. R4 should send a summary route to ITA representing all the R4 loopback interfaces.
13. R4 should prefer the path to ITA networks via the Ethernet link between R1 and R4. Accomplish this by modifying the MED advertised to TDP.
14. Routers in the ITA AS should prefer the path to TDP networks via the Ethernet link between R1 and R4. Accomplish this by modifying the local preference of routes being advertised in from TDP.