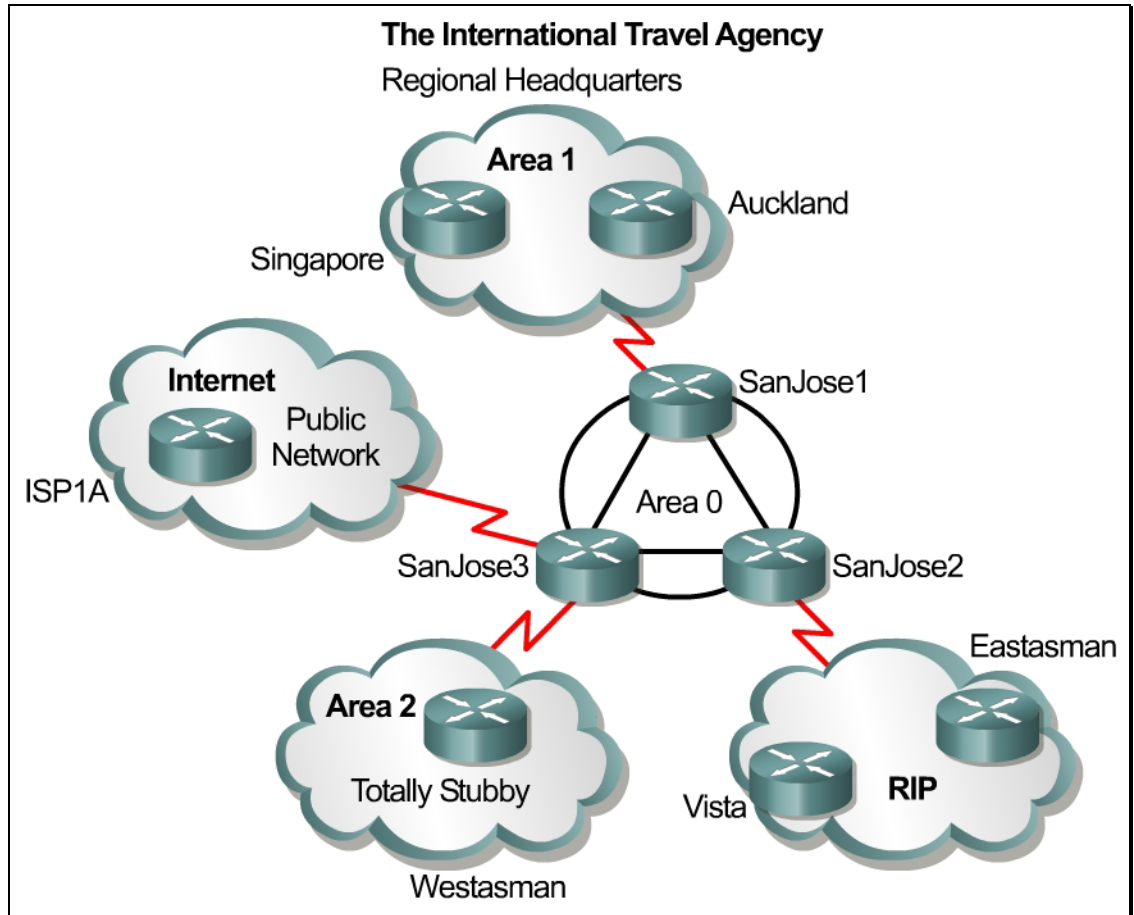# OSPF

Cisco Networking Academy Program

CCNP 1: Advanced Routing v3.0

Instructions

Plan, design, and implement the complex International Travel Agency OSPF network shown in the diagram and description below. Implement the design on the lab set of routers. Verify that all configurations are operational and functioning according to the guidelines.

Scenario

The International Travel Agency has decided to change the network routing protocol. The responsibilities of the network engineer include creating, maintaining and implementing changes to the network. The network will be based on and must meet the following requirements:

1. The San Jose core routers must run OSPF and be configured in Area 0.

2. The network has been allocated one Class A license.

3. Use VLSM on all serial interfaces as may be appropriate.

4. This network will have three outer areas. The regional headquarters in Singapore and Auckland in Area 1 will run OSPF normally. The Westasman branch office in Area 2 will be a totally stubby network. The Vista and Eastasman branch offices will be RIP networks.

5. Summarize all routes from each area into the core. Plan for approximately 30 networks in each area in the diagram with the exception of the core, exactly as shown in Area 0.

6. Redistribute routing information between OSPF and the RIP network.

7. In the West Tasman branch office in Area 2, implement EZ IP on the router for users.

8. In the Vista and East Tasman branch offices RIP cloud, configure a DHCP server on a LAN segment. Use an IP helper address so that a workstation on another subnet in that area can obtain an IP address from the DHCP server.

9. Configure Internet connectivity through a static route.

10. Document the configuration and any difficulties that were encountered.

11. What were the implementation issues or limitations?

12. List two suggestions for improving this network configuration and design.