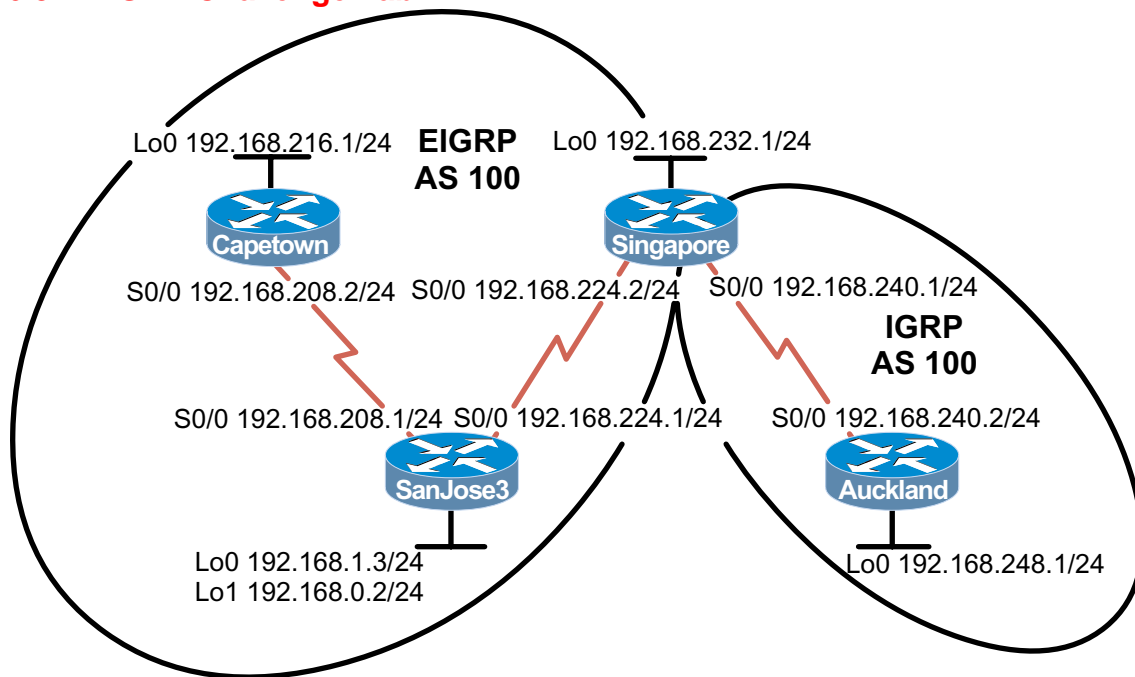


6.8.1 EIGRP Challenge Lab



Objective

In this lab, you configure an International Travel Agency EIGRP WAN link with one IGRP segment within the same autonomous system. You also use EIGRP interface summarization to reduce the number of routes in an EIGRP routing table.

Scenario

The International Travel Agency is migrating from IGRP to EIGRP between its overseas headquarters and its North American headquarters. Unfortunately, the Auckland headquarters must continue running IGRP between it and Singapore. To help reduce the EIGRP routing table of the SanJose3 router, the Singapore router should be configured to advertise only a summary of the Auckland addresses. Then both the SanJose3 and Capetown routers would have summary Auckland addresses and smaller routing tables.

Design Considerations

Before you begin this lab, it is recommended that you reload each router after erasing its startup configuration. This prevents you from having problems caused by residual configurations. It is also recommended that you build and configure the network according to the diagram, but don't configure EIGRP or IGRP until you can verify and test connectivity between directly connected networks. The respective loopback addresses simulate local networks, so no physical connections need to be made.

Implementation Completion Tests

- A successful **ping** to every network (interface) from every router.

Capture Files/Printouts

After initial EIGRP and IGRP configuration, but before interface summarization, capture or print the following output:

- **show run** and **show ip route** for each router.
- **show ip eigrp neighbor** of the SanJose3 and Singapore routers.
- **show ip eigrp topology all-links** of the SanJose3 and Singapore routers.

After interface summarization, capture or print the following output:

- **show run** and **show ip route** of the Singapore router.
- **show ip route** of the SanJose3 and Capetown routers.