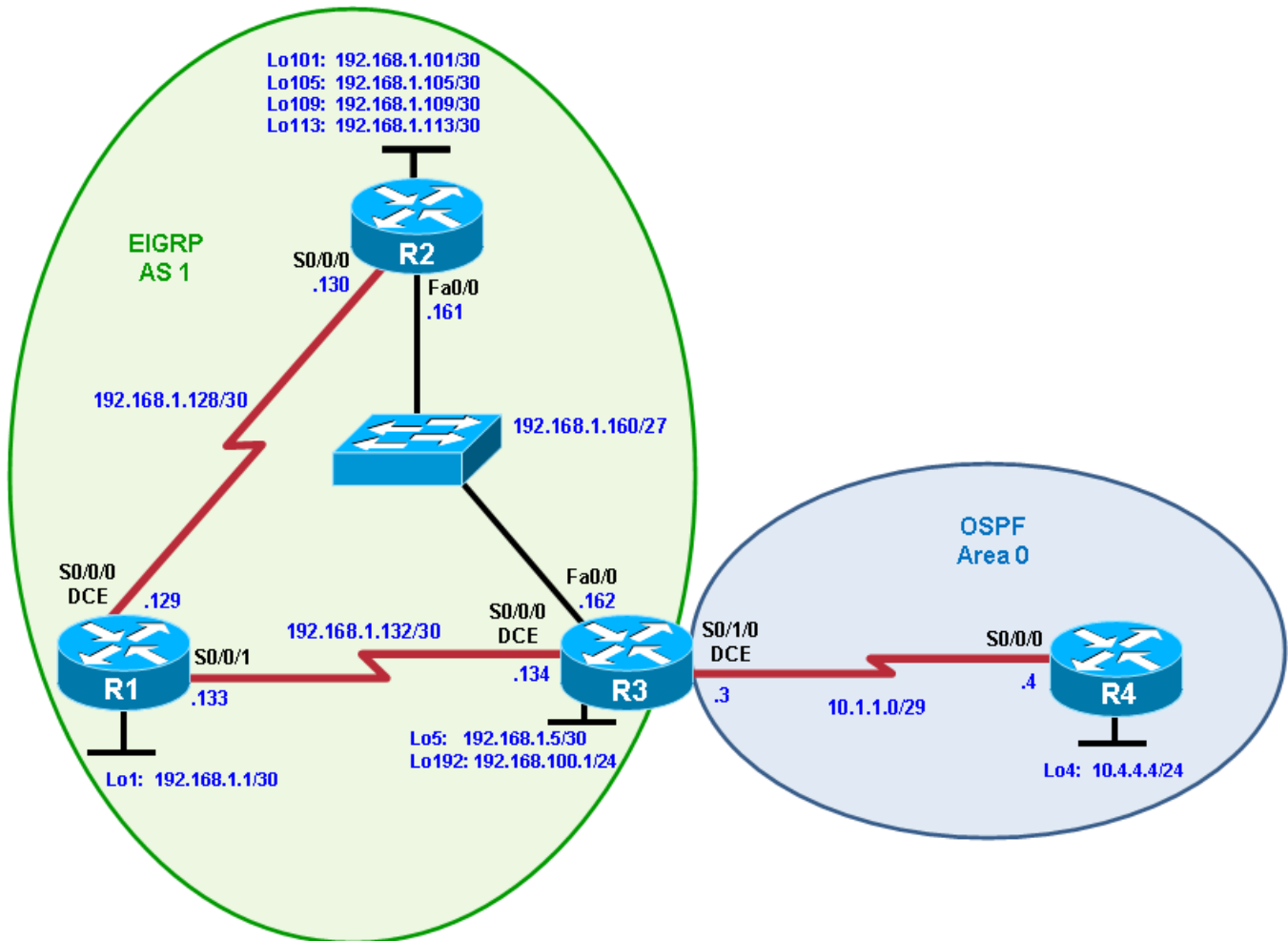


Chapter 4 Lab 4-4, EIGRP and OSPF Case Study

Topology



Objectives

- Plan, design, and implement the International Travel Agency (ITA) EIGRP.
- Integrate the Local Travel Agency OSPF network with the ITA EIGRP network.
- Implement the design on the lab routers.
- Verify that all configurations are operational and functioning according to the guidelines.

Background

ITA requires its core network set up using EIGRP with the following specifications. It has also recently acquired Local Travel Agency, which was running OSPF. Use the addressing scheme shown in the diagram.

Note: This lab uses Cisco 1841 routers with Cisco IOS Release 12.4(24)T1 and the Advanced IP Services image c1841-advipservicesk9-mz.124-24.T1.bin. The switch is a Cisco WS-C2960-24TT-L with the Cisco IOS

CCNPv6 ROUTE

image c2960-lanbasek9-mz.122-46.SE.bin. You can use other routers (such as 2801 or 2811), switches (such as 2950), and Cisco IOS Software versions if they have comparable capabilities and features. Depending on the router or switch model and Cisco IOS Software version, the commands available and output produced might vary from what is shown in this lab.

Required Resources

- 4 routers (Cisco 1841 with Cisco IOS Release 12.4(24)T1 Advanced IP Services or comparable)
- 1 switch (Cisco 2960 with the Cisco IOS Release 12.2(46)SE C2960-LANBASEK9-M image or comparable)
- Serial and Ethernet cables

Requirements

1. The ITA core network is running EIGRP in AS 1.
2. Summarize the loopback interfaces on R2 with the best summary route to the other EIGRP routers.
3. Loopback 192 on R3 represents a connection to the Internet. Originate a default route into EIGRP from R3.
4. The Local Travel Agency router, R4, needs to communicate with the ITA core via OSPF area 0.
5. Redistribute OSPF into EIGRP.
6. Originate a default route into the OSPF process from R3.
7. Test connectivity using a Tcl script on all routers.

Notes:

Router Interface Summary Table

Router Interface Summary				
Router Model	Ethernet Interface #1	Ethernet Interface #2	Serial Interface #1	Serial Interface #2
1700	Fast Ethernet 0 (FA0)	Fast Ethernet 1 (FA1)	Serial 0 (S0)	Serial 1 (S1)
1800	Fast Ethernet 0/0 (FA0/0)	Fast Ethernet 0/1 (FA0/1)	Serial 0/0/0 (S0/0/0)	Serial 0/0/1 (S0/0/1)
2600	Fast Ethernet 0/0 (FA0/0)	Fast Ethernet 0/1 (FA0/1)	Serial 0/0 (S0/0)	Serial 0/1 (S0/1)
2800	Fast Ethernet 0/0 (FA0/0)	Fast Ethernet 0/1 (FA0/1)	Serial 0/0/0 (S0/0/0)	Serial 0/0/1 (S0/0/1)

Note: To find out how the router is configured, look at the interfaces to identify the type of router and how many interfaces the router has. Rather than list all combinations of configurations for each router class, this table includes identifiers for the possible combinations of Ethernet and serial interfaces in the device. The table does not include any other type of interface, even though a specific router might contain one. For example, for an ISDN BRI interface, the string in parenthesis is the legal abbreviation that can be used in Cisco IOS commands to represent the interface.