Packet Tracer - Troubleshoot EIGRP for IPv4 (Instructor Version)

Instructor Note: Red font color or gray highlights indicate text that appears in the instructor copy only.

Answers: 4.2.1 Packet Tracer - Troubleshoot EIGRP for IPv4

Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
R1	G0/0	172.31.10.1	255.255.255.0	N/A
	S0/0/0	172.31.40.225	255.255.255.252	
	S0/0/1	172.31.40.233	255.255.255.252	
R2	G0/0	172.31.20.1	255.255.255.0	N/A
	S0/0/0	172.31.40.226	255.255.255.252	
	S0/0/1	172.31.40.229	255.255.255.252	
	S0/1/0	209.165.201.1	255.255.255.224	
R3	G0/0	172.31.30.1	255.255.255.0	N/A
	S0/0/0	172.31.40.234	255.255.255.252	
	S0/0/1	172.31.40.230	255.255.255.252	
PC1	NIC	172.31.10.10	255.255.255.0	172.31.10.1
PC2	NIC	172.31.20.10	255.255.255.0	172.31.20.1
PC3	NIC	172.31.30.10	255.255.255.0	172.31.30.1

Scenario

In this activity, you will troubleshoot EIGRP neighbor issues. Use show commands to identify errors in the network configuration. Then, you will document the errors you discover and implement an appropriate solution. Finally, you will verify that full end-to-end connectivity is established.

Troubleshooting Process

1. Use testing commands to discover connectivity problems in the network and document the problem in the Documentation Table.

2. Use verification commands to discover the source of the problem and devise an appropriate solution to implement. Document the proposed solution in the Documentation Table.

3. Implement each solution one at a time and verify if the problem is resolved. Indicate the resolution status in the Documentation Table.

4. If the problem is not resolved, it may be necessary to first remove the implemented solution before returning to Step 2.

5. After all identified problems are resolved, test for full end-to-end connectivity.

Documentation Table

Device	Identified Problem	Proposed Solution	Resolved?
R1	Has not established any adjacencies	Remove EIGRP 11 and configure EIGRP 1, advertise the directly connected networks and passive-interface g0/0 and disable automatic summarization.	
R2	Is not forming an adjacency with R3.	Advertise the 172.31.40.228/30 network	
R3	Is performing automatic summarization	Disable automatic summarization using the no auto-summary EIGRP subcommand	