

Packet Tracer - Troubleshoot EIGRP for IPv6 (Instructor Version)

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

Answers: [5.2.2 Packet Tracer - Troubleshoot EIGRP for IPv6](#)

Addressing Table

Device	Interface	IPv6 Address	Default Gateway
R1	G0/0	2001:db8:cafe:1::1/64	N/A
	S0/0/0	2001:db8:cafe:a001::1/64	
	S0/0/1	2001:db8:cafe:a003::1/64	
	Link-local	fe80::1	
R2	G0/0	2001:db8:cafe:2::1/64	N/A
	S0/0/0	2001:db8:cafe:a001::2/64	
	S0/0/1	2001:db8:cafe:a002::1/64	
	Link-local	fe80::2	
R3	G0/0	2001:db8:cafe:3::1/64	N/A
	S0/0/0	2001:db8:cafe:a003::2/64	
	S0/0/1	2001:db8:cafe:a002::2/64	
	Link-local	fe80::3	
PC1	NIC	2001:db8:cafe:1::3/64	fe80::1
PC2	NIC	2001:db8:cafe:2::3/64	fe80::2
PC3	NIC	2001:db8:cafe:3::3/64	fe80::3

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 full end-to-end connectivity is restored.

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

Instructions

Locate and address communication problems in the network by using the appropriate EIGRP for IPv6 show commands. Document your findings in the table below. Propose and implement solutions for the problems. Finally, indicate in the Documentation Table whether the problem has been resolved.

Documentation Table

Device	Identified Problem	Reason	Proposed Solution	Resolved?
R1	No IPv6 routes have been learned from other routers and there are no neighbor adjacencies.	EIGRP for IPv6 is shutdown	Issue the no shutdown command under the EIGRP for IPv6 routing process.	
R1	After the routing process is started, there is no adjacency with router R3	The S0/0/1 interface is configured in the wrong EIGRPv6 process.	Configure the interface in ipv6 eigrp 1.	
R2	No neighbor adjacency with router R3.	The S0/0/1 interface has not been configured to participate in EIGRP in IPv6 routing.	Configure the interface with EIGRPv6.	

Answer Scripts

Router R1

```
enable
configure terminal
ipv6 router eigrp 1
no shutdown
interface s0/0/1
no ipv6 eigrp 2
ipv6 eigrp 1
end
```

Router R2

```
enable
configure terminal
interface s0/0/1
ipv6 eigrp 1
end
```