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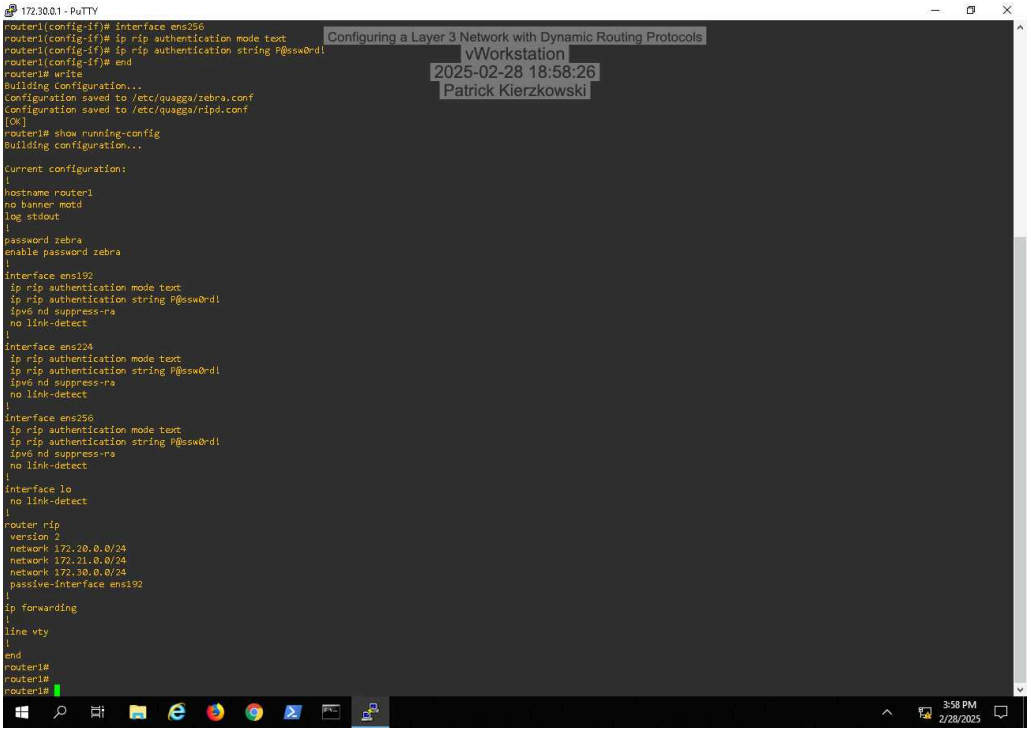
Time on Task:	Progress:
9 hours, 12 minutes	100%

Report Generated: Monday, July 7, 2025 at 9:46 PM

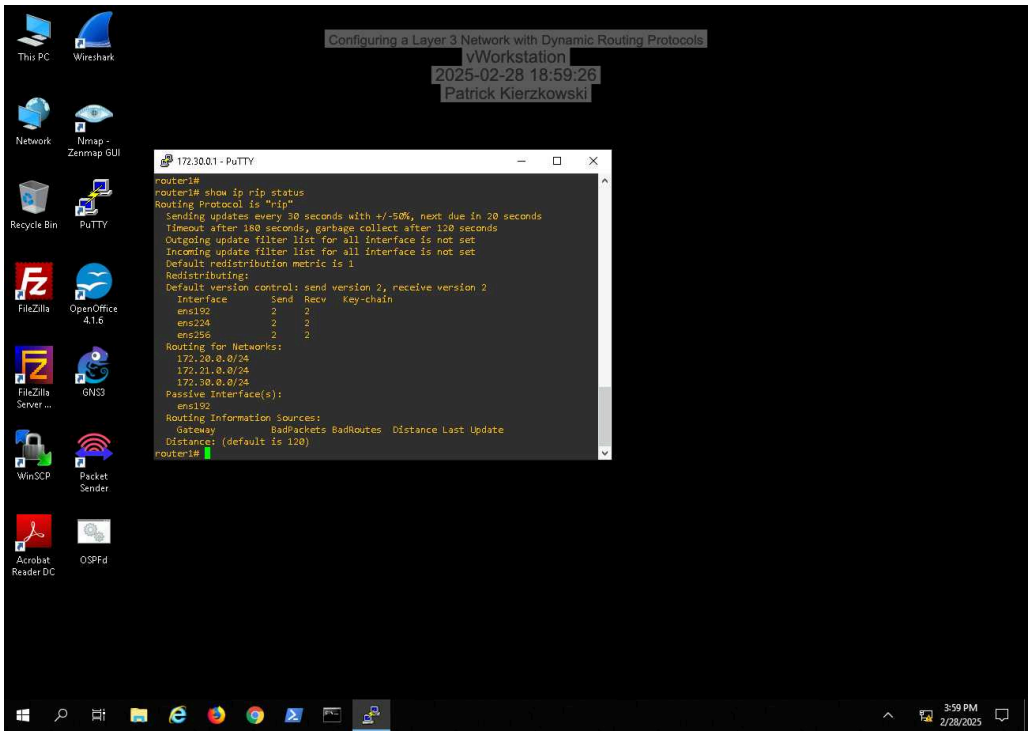
Section 1: Hands-On Demonstration

Part 1: Configure RIPv2 on the Routers

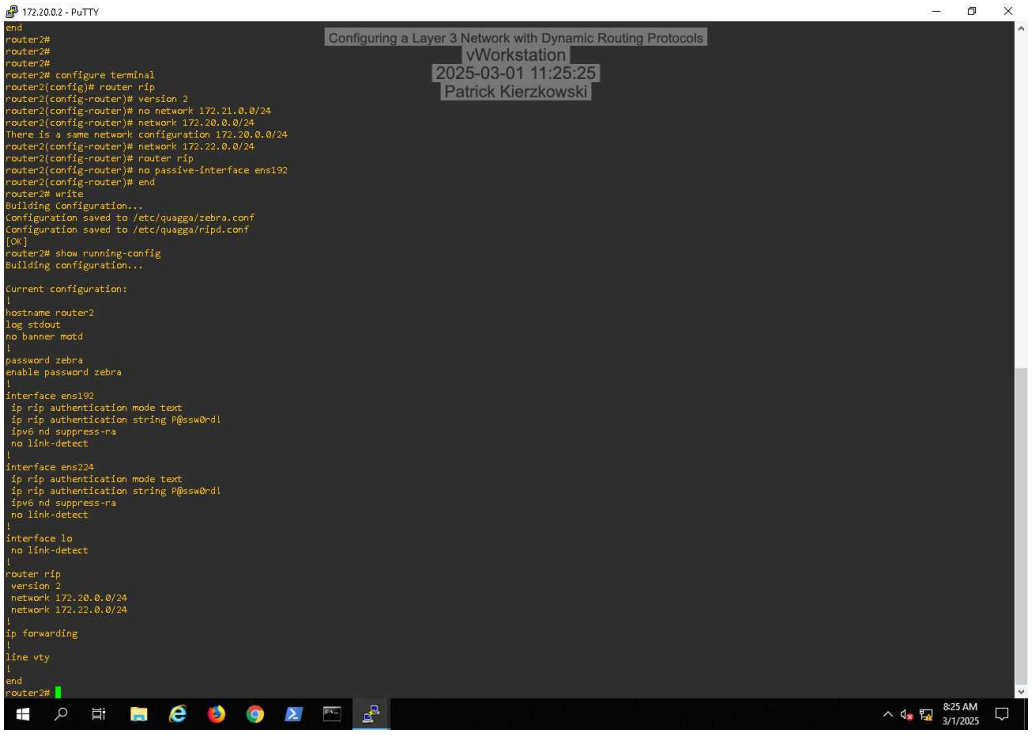
22. **Make a screen capture** showing the **currently running RIP configuration on router1**.



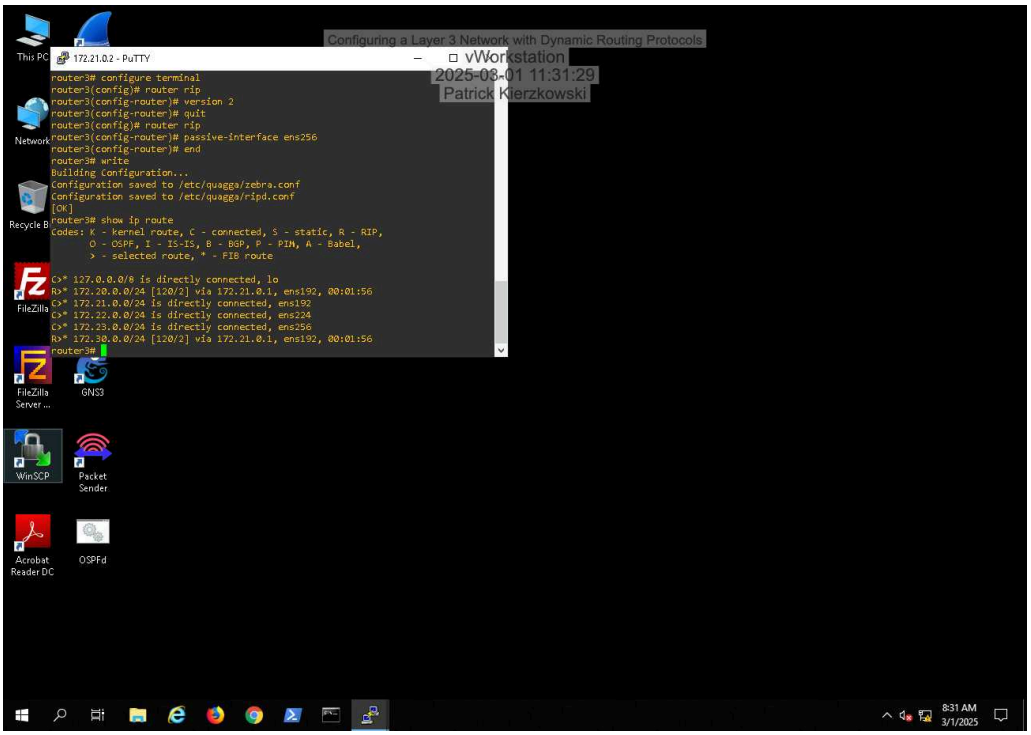
24. **Make a screen capture** showing the **output of the show ip rip status command**.



30. **Make a screen capture** showing the **currently running RIP configuration on router2**.

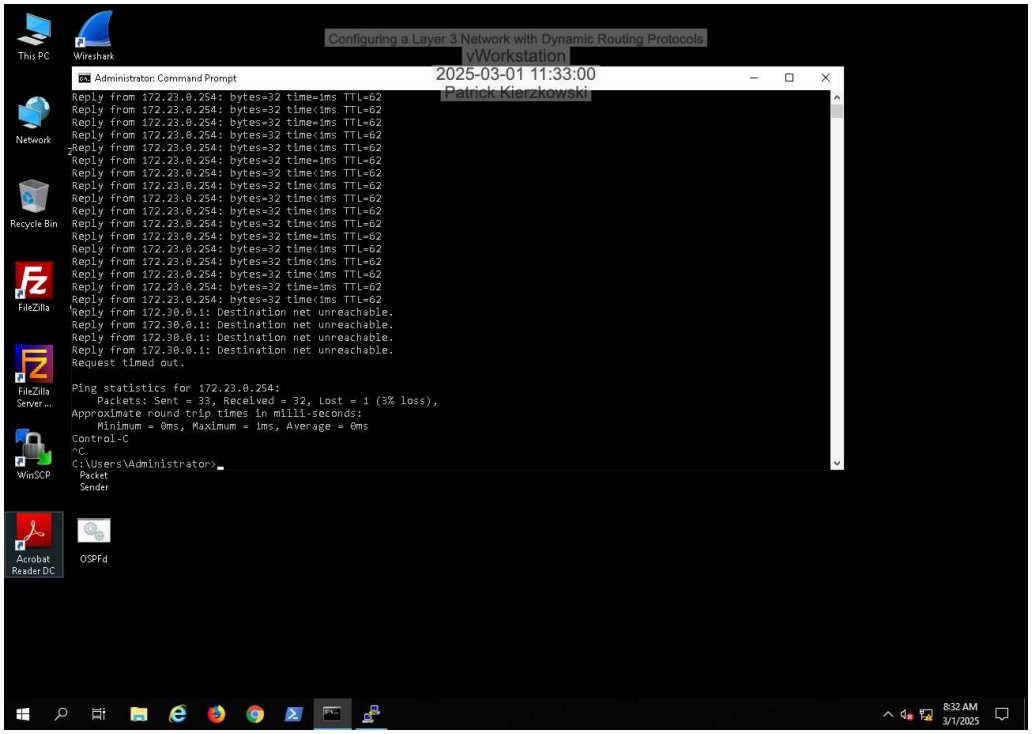


41. **Make a screen capture** showing the **routes known by router3**.

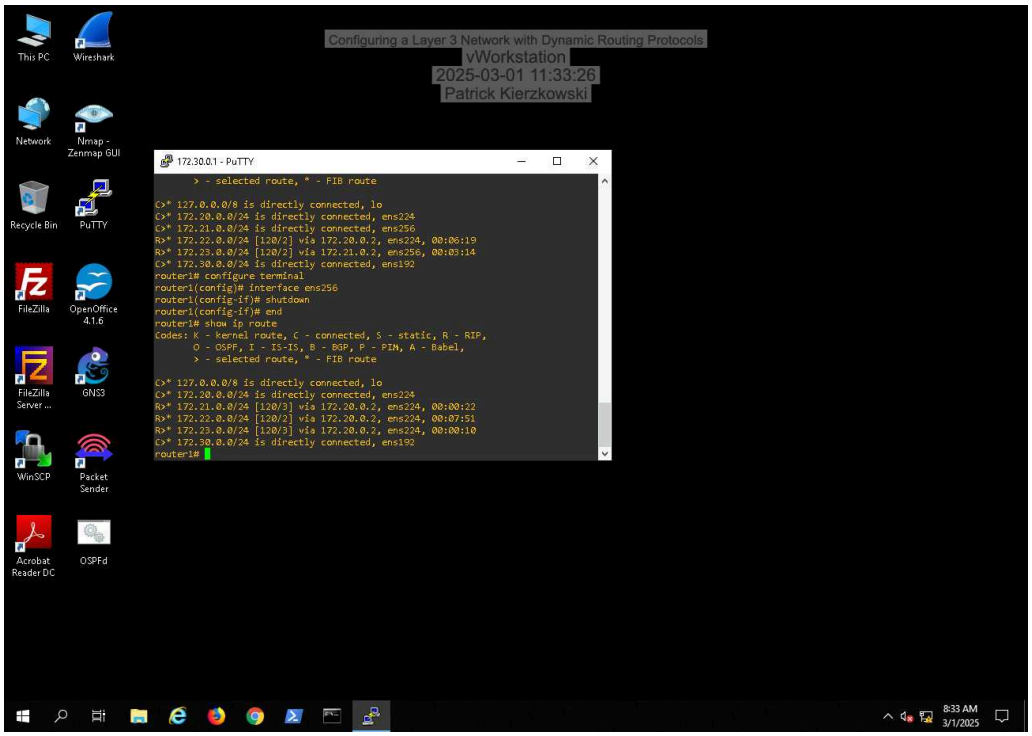


Part 2: Test the RIPv2 Configuration

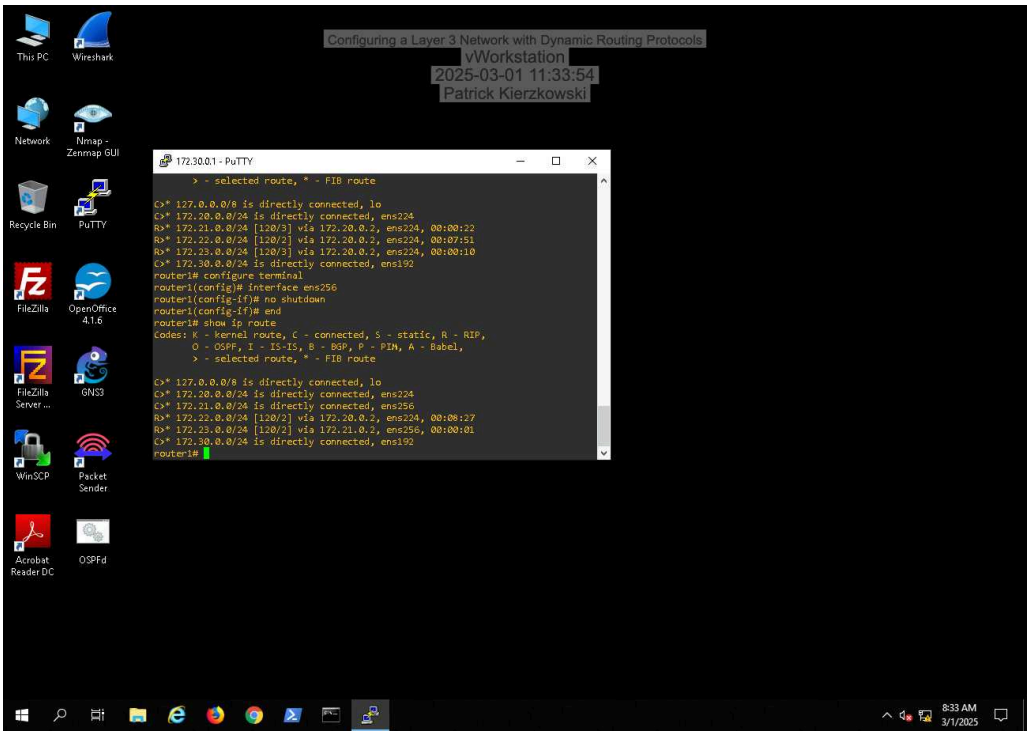
15. **Make a screen capture** showing the **"Destination net unreachable" messages, including the successful responses that preceded and succeeded them**.



20. **Make a screen capture** showing the **new routing table on router1 that resulted from the ens256 link removal**.



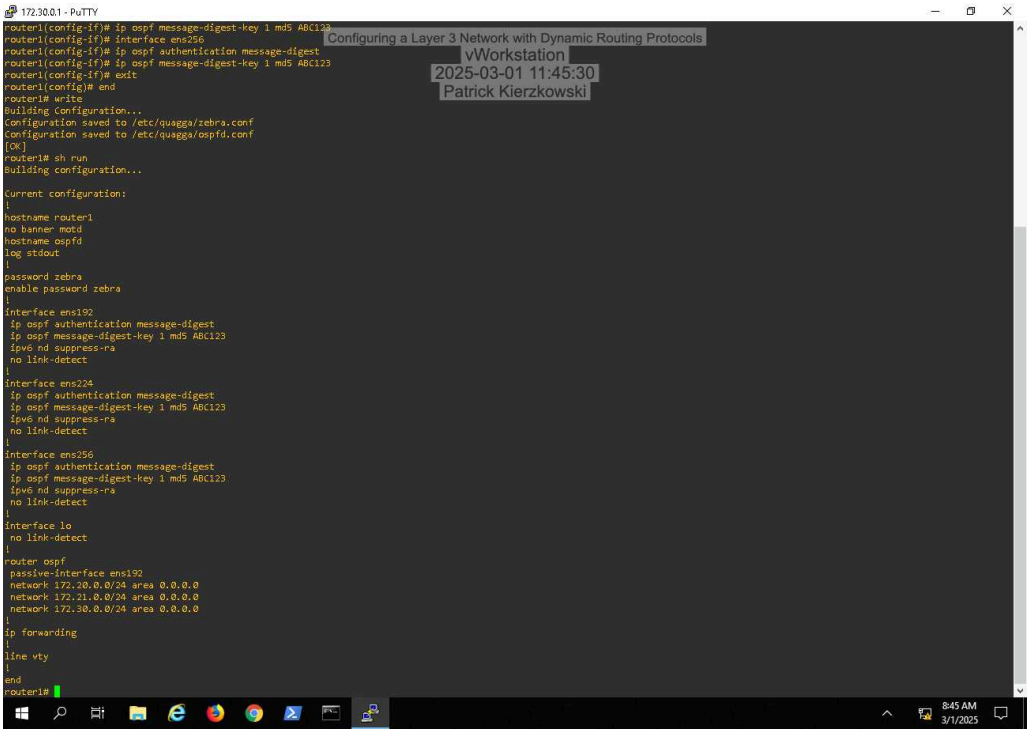
26. **Make a screen capture** showing the **updated routing table on router1**.



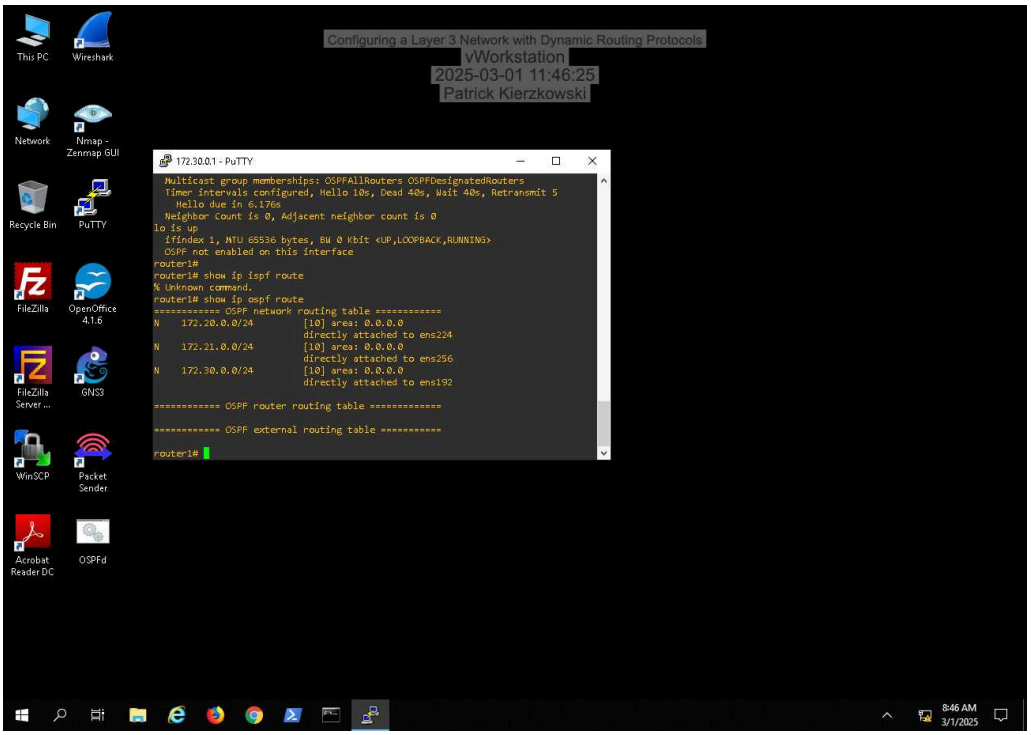
Section 2: Applied Learning

Part 1: Configure OSPFv2 on the Routers

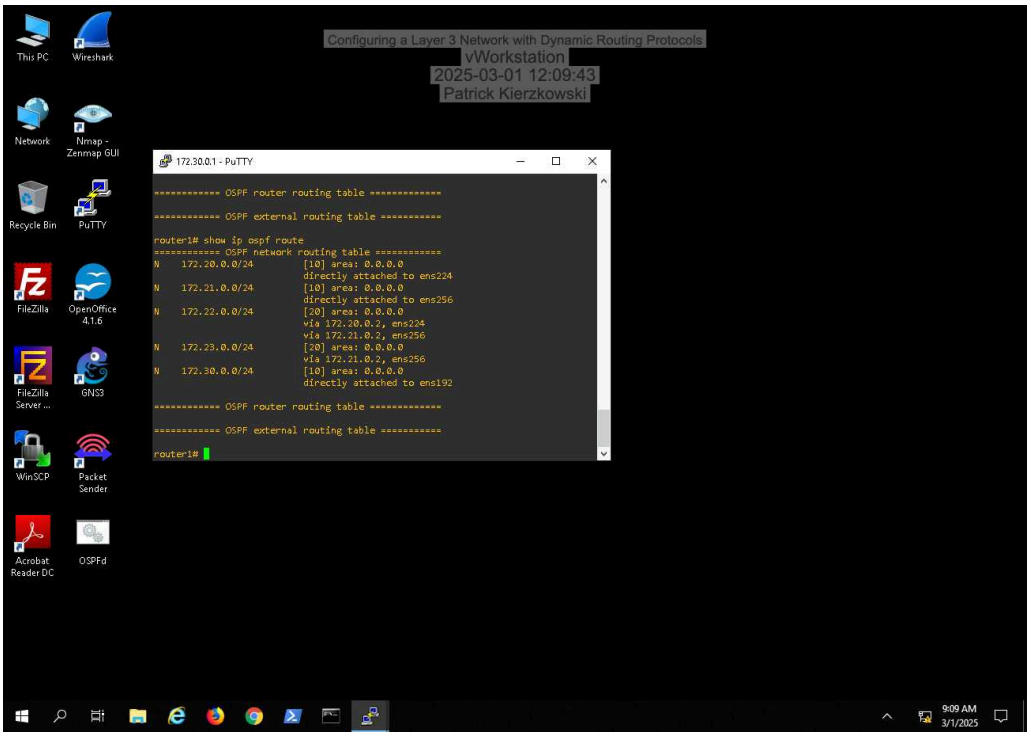
17. **Make a screen capture** showing the **running OSPF configuration on router1**.



20. **Make a screen capture** showing the **current OSPF routing table on router1**.

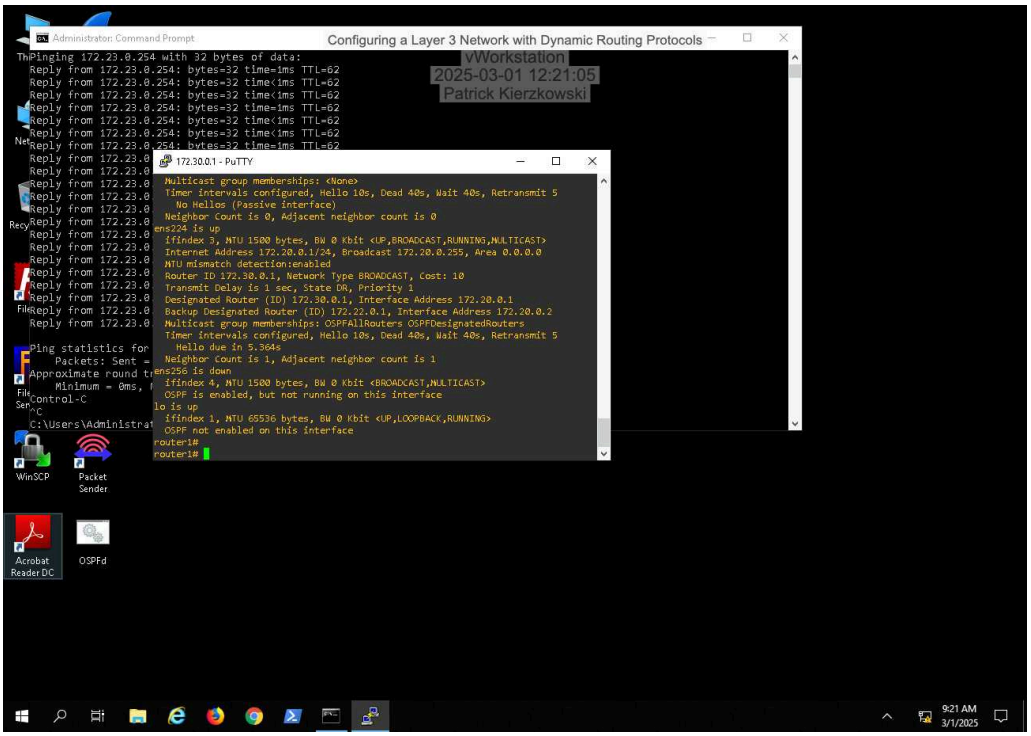


26. **Make a screen capture** showing the **updated OSPF routing table on router1**.

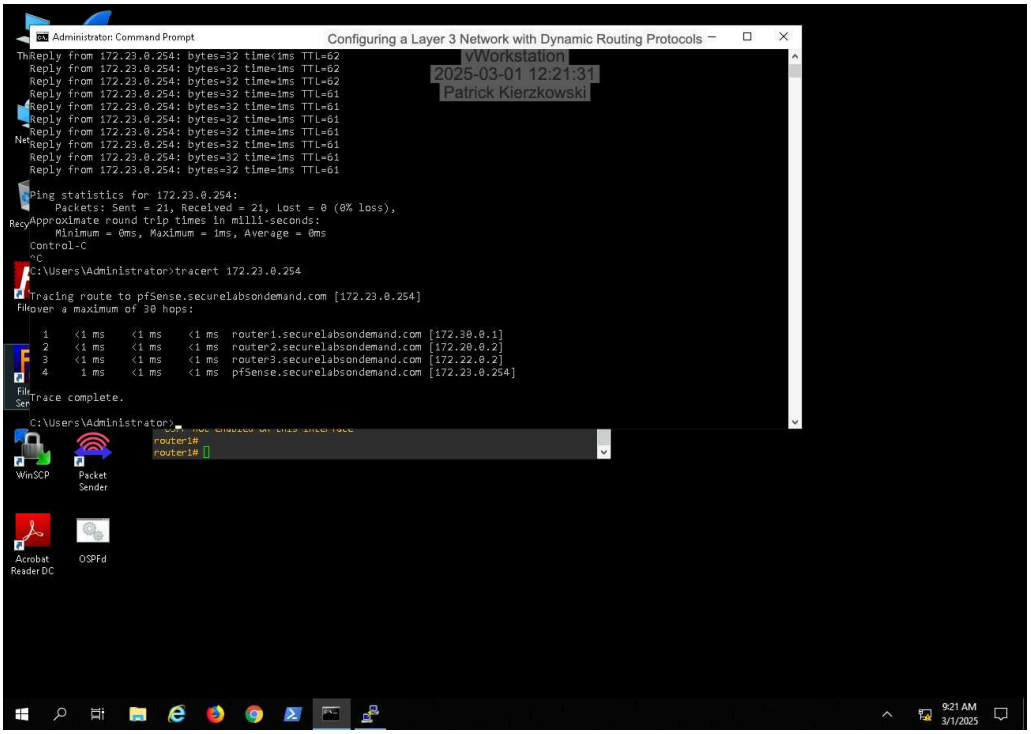


Part 2: Test the OSPFv2 Configuration

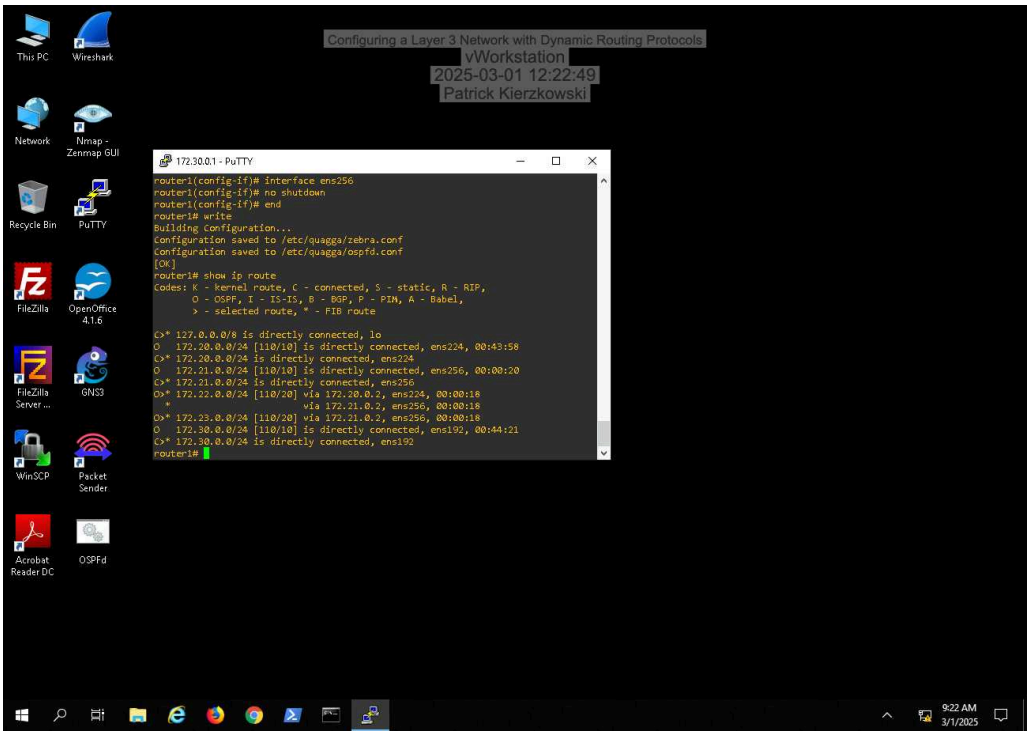
13. **Make a screen capture** showing that **ens256 is down per the OSPF interface output**.



16. **Make a screen capture** showing the **traceroute path through router2**.



23. **Make a screen capture** showing the **full routing table on router1**.



Section 3: Challenge and Analysis

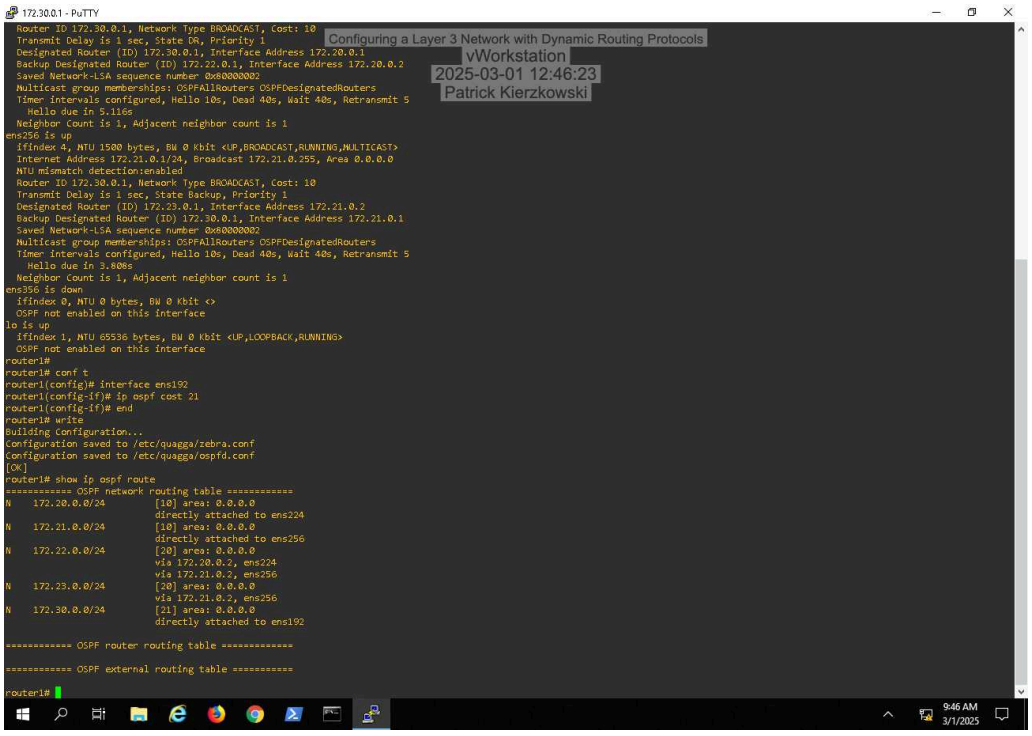
Part 1: Calculate the OSPF Cost to Force a New Path Preference

Record the minimum OSPF cost needed for the router1 > router3 link to convince OSPF that this path is less efficient than the router1 > router2 > router3 path. **Explain** how you calculated this value.

The minimum OSPF cost needed for the router 1 to router 3 link is 21. To make the path from router 1 to router 3 less efficient, its total cost must be higher than 30, which is the path from router 1 to router 2 to router 3. By making the router 1 to router 3 cost to 21, the total cost becomes 31, making it less efficient.

Part 2: Manually Set the OSPF Cost to Force a New Path Preference

Make a screen capture showing the **new cost assignments on router1's OSPF routes**.



Part 3: Test Your Cost Changes

Make a screen capture showing the **new path taken to reach the pfSense appliance**.