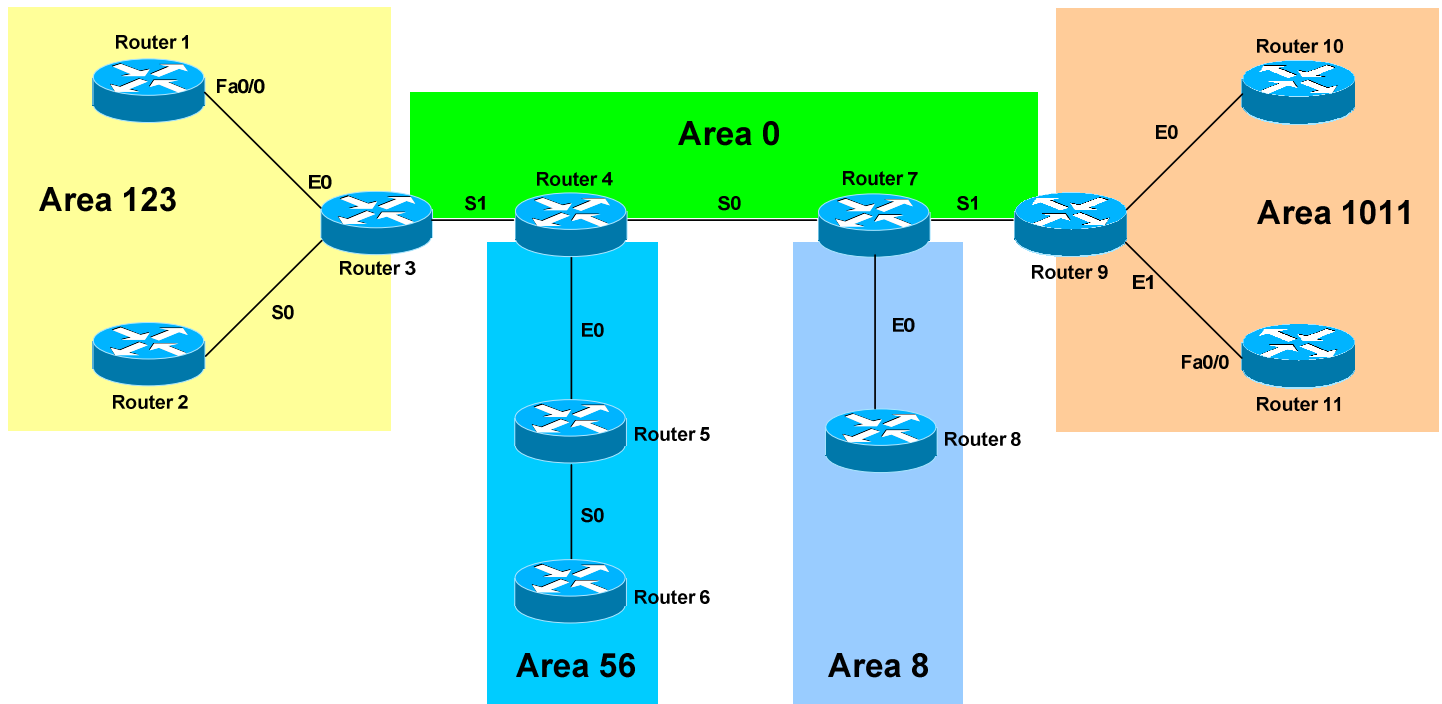


## - Advanced OSPF Lab -

### Configuring OSPF Routing – Advanced Lab



### Basic Objectives:

1. Configure and cable the Serial and Ethernet interfaces as indicated in the above diagram.
2. Configure IP addresses between the routers using the following 192.168.YY.x/24 scheme:
 

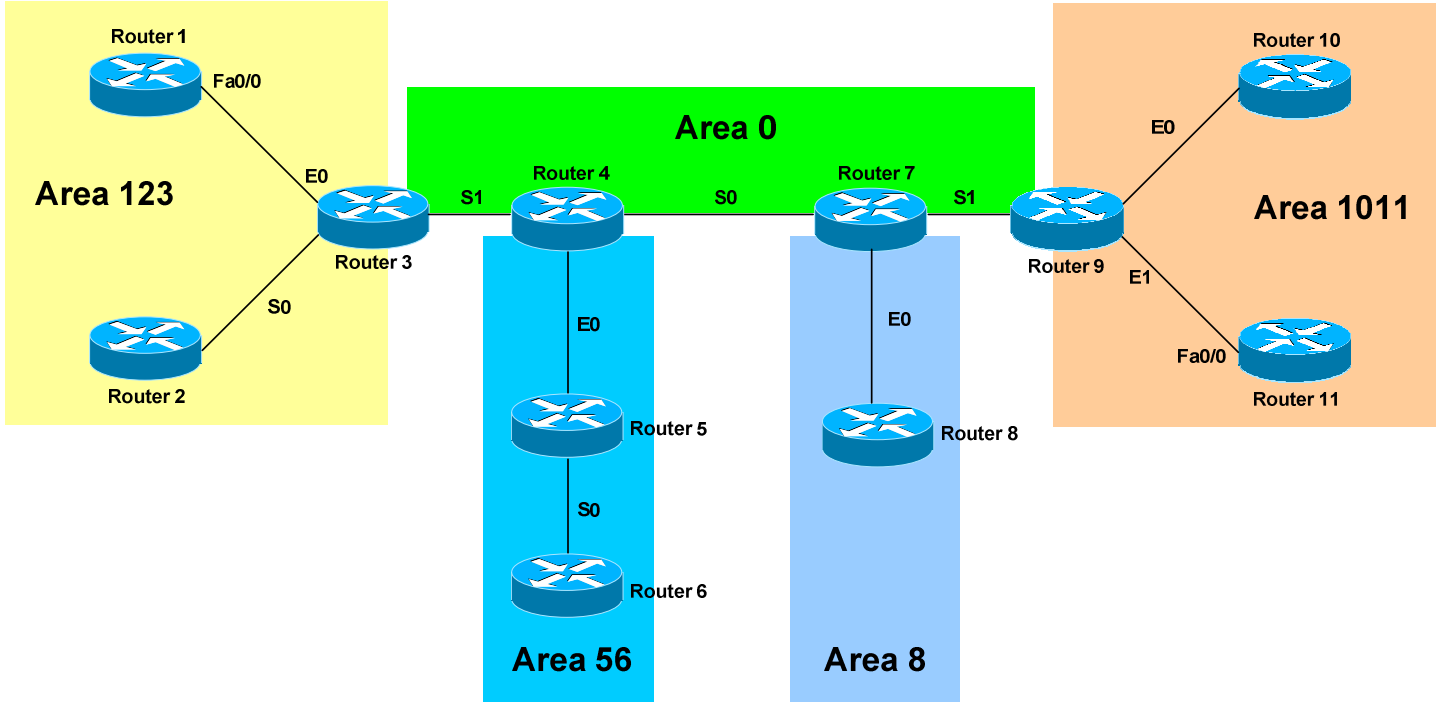
Router 1 – 3 = 192.168.13.x	Router 5 – 6 = 192.168.56.x
Router 2 – 3 = 192.168.23.x	Router 7 – 8 = 192.168.78.x
Router 3 – 4 = 192.168.34.x	Router 7 – 9 = 192.168.79.x
Router 4 – 5 = 192.168.45.x	Router 9 – 10 = 192.168.109.x
Router 4 – 7 = 192.168.47.x	Router 9 - 11 = 192.168.119.x
3. Configure a loopback interface on each router. The interface should have an address using the following scheme: Y.Y.Y.Y/24. For example, Router 4's loopback should be 4.4.4.4/24.

\* \* \*

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**Configuring OSPF Routing – Advanced Lab (continued)**



**OSPF Objectives:**

4. Configure OSPF on all routers. Use whatever process ID you wish.

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5. Manually set the OSPF router-ID on your router to your loopback IP.

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6. Place each interface on your router into the Area specified by the diagram. Place loopback interfaces in whatever area is easiest.

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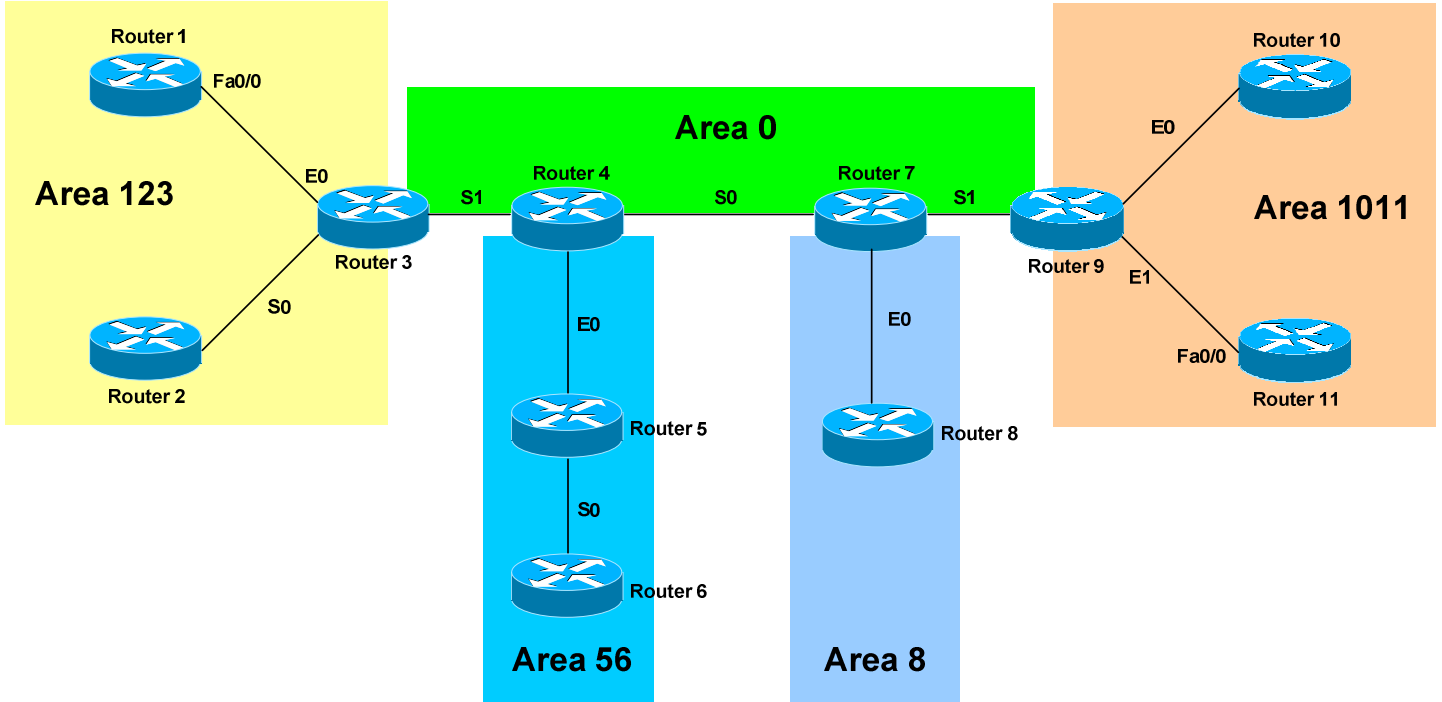
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**Configuring OSPF Routing – Advanced Lab (continued)**



**OSPF Objectives:**

7. Configure OSPF md5 authentication throughout your OSPF domain. Use a key of “CISCO” between all neighbors.

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8. Area 123 and Area 8 should not accept Type 3, 4, or 5 LSAs. Area 56 and Area 1011 should not accept Type 4 or 5 LSAs. However, all areas should accept Type 7 LSA’s.

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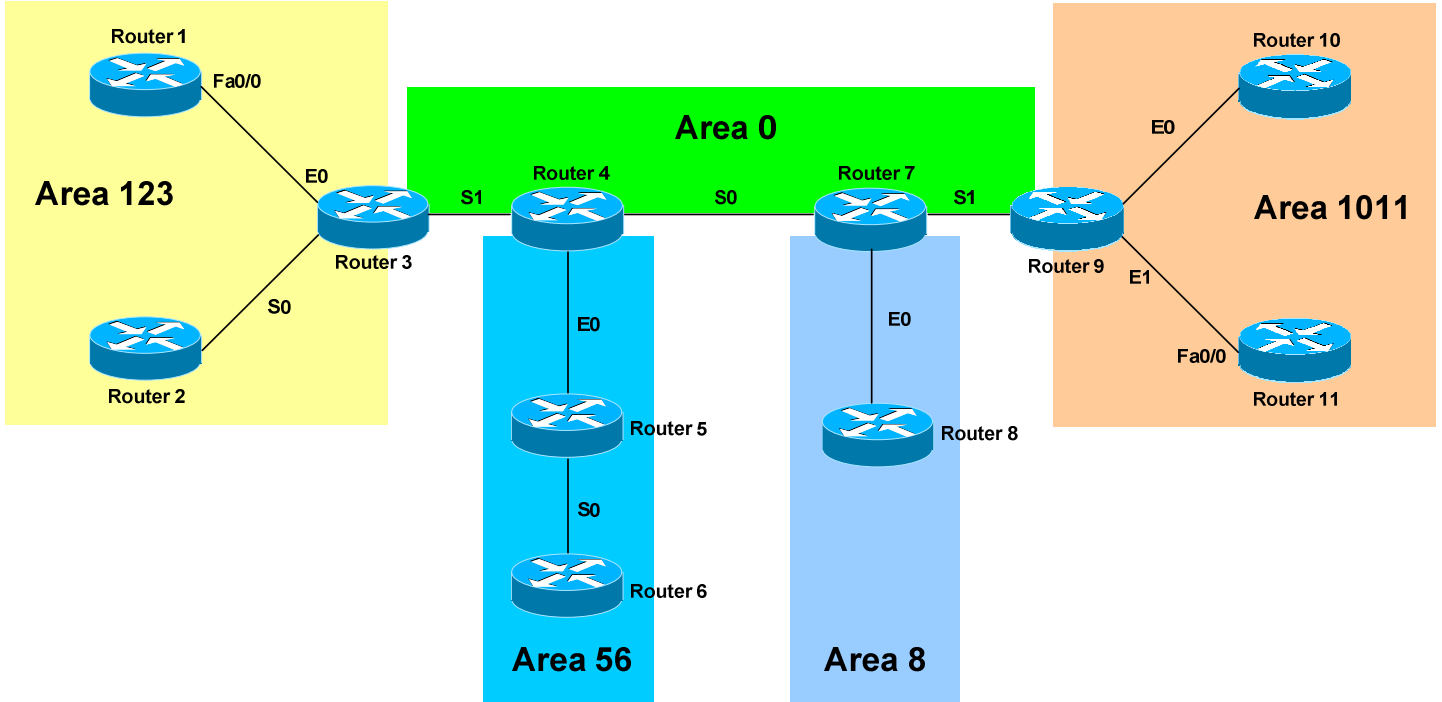
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**Configuring OSPF Routing – Advanced Lab (continued)**



**OSPF Objectives:**

9. Ensure that all networks are reachable.

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10. On each router, create a loopback interface with the following address 66.XX.1.1/16, where XX is your router number.

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11. Create static routes on each router to the following networks, and set a next hop of 66.XX.1.2:

77.XX.0.0/24, 77.XX.1.0/24, 77.XX.2.0/24, 77.XX.3.0/24

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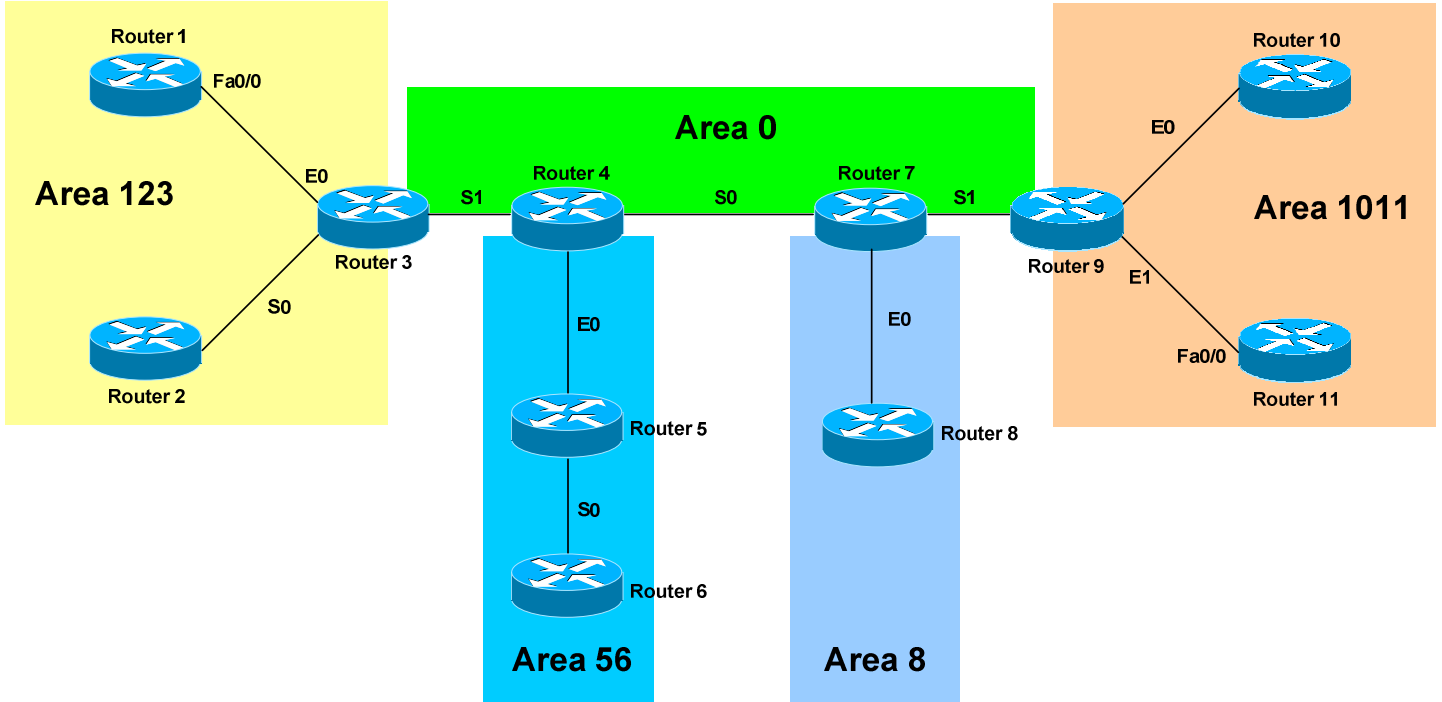
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**Configuring OSPF Routing – Advanced Lab (continued)**



**OSPF Objectives:**

12. Redistribute these static routes into the OSPF process. Check your routing tables to ensure these routes have propagated.

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13. Configure OSPF to summarize these redistributed routes into a single route. However, you still want the 77.XX.1.0 network to be advertised individually.

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