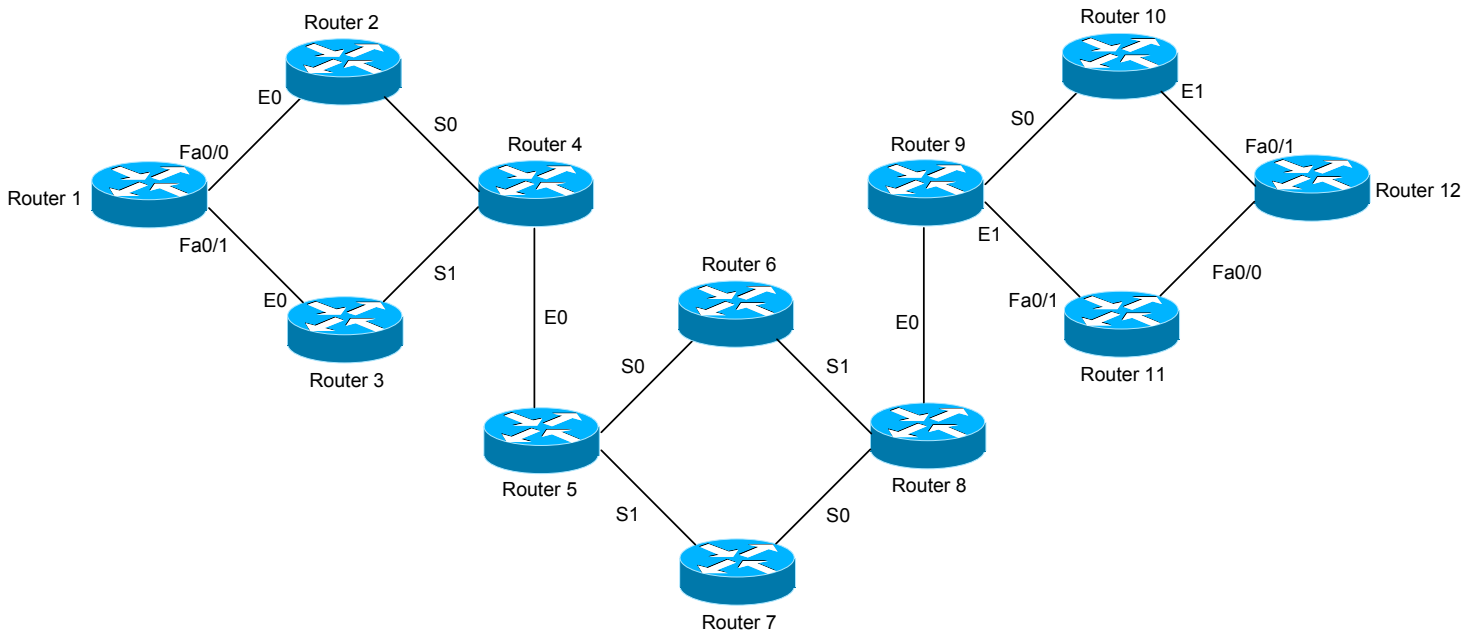


- Advanced RIP Lab -

Advanced RIP – Lab



Basic Objectives:

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

| | |
|-----------------------------|--------------------------------|
| Router 1 – 2 = 192.168.12.x | Router 6 – 8 = 192.168.68.x |
| Router 1 – 3 = 192.168.13.x | Router 7 – 8 = 192.168.78.x |
| Router 2 – 4 = 192.168.24.x | Router 8 – 9 = 192.168.89.x |
| Router 3 – 4 = 192.168.34.x | Router 9 – 10 = 192.168.109.x |
| Router 4 – 5 = 192.168.45.x | Router 9 – 11 = 192.168.119.x |
| Router 5 – 6 = 192.168.56.x | Router 10 – 12 = 192.168.120.x |
| Router 5 – 7 = 192.168.57.x | Router 11 – 12 = 192.168.121.x |

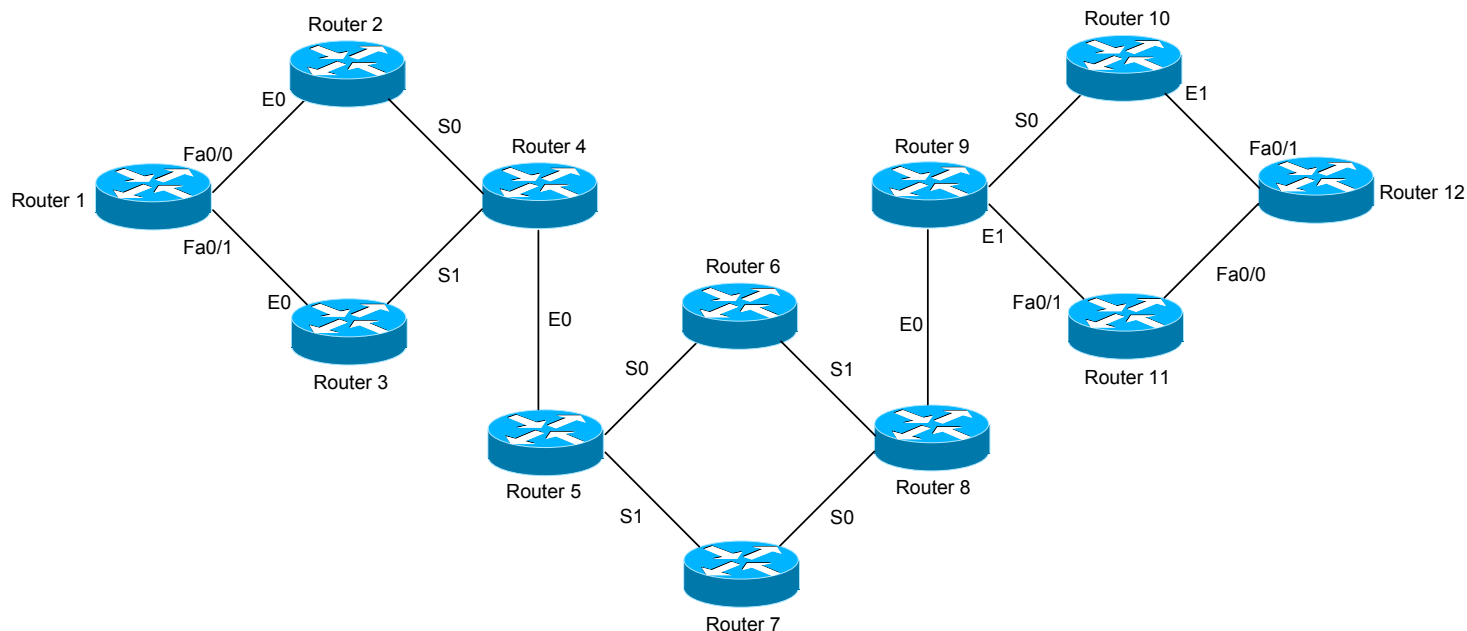
3. Configure a loopback interface on each router. The interface should have an address using the following scheme: Y.Y.Y.Y/24. For example, Router 4's loopback should be 4.4.4.4/24.

* * *

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Advanced RIP – Lab

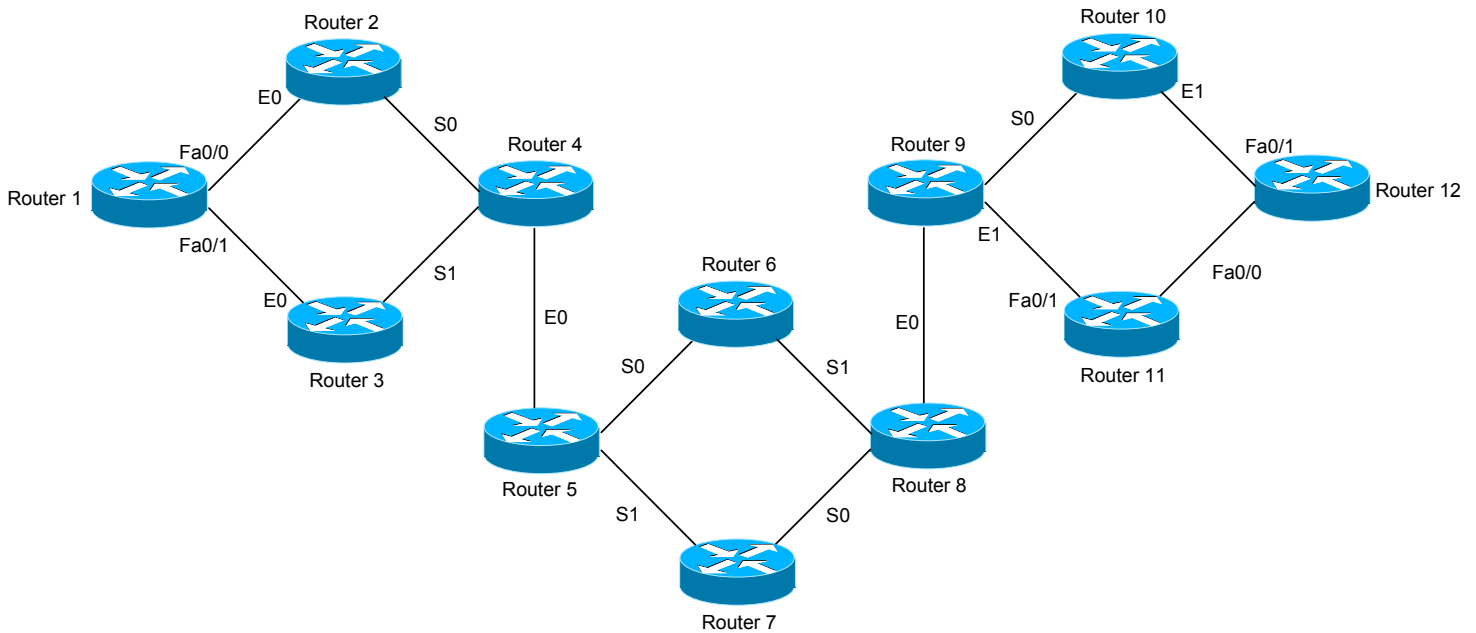


RIP Objectives:

- 4. On Router 1 and Router 12, create a *second* loopback interface. On Router 1, the address should be 55.55.55.1. On Router 12, the address should be 55.66.66.1.
- 5. Configure RIP routing on all routers. Use ONLY RIP Version 1. Ensure that all networks are injected into the RIP process, including loopbacks. Are all networks reachable? Why or why not? What does the routing table look like?

* * *

Advanced RIP – Lab

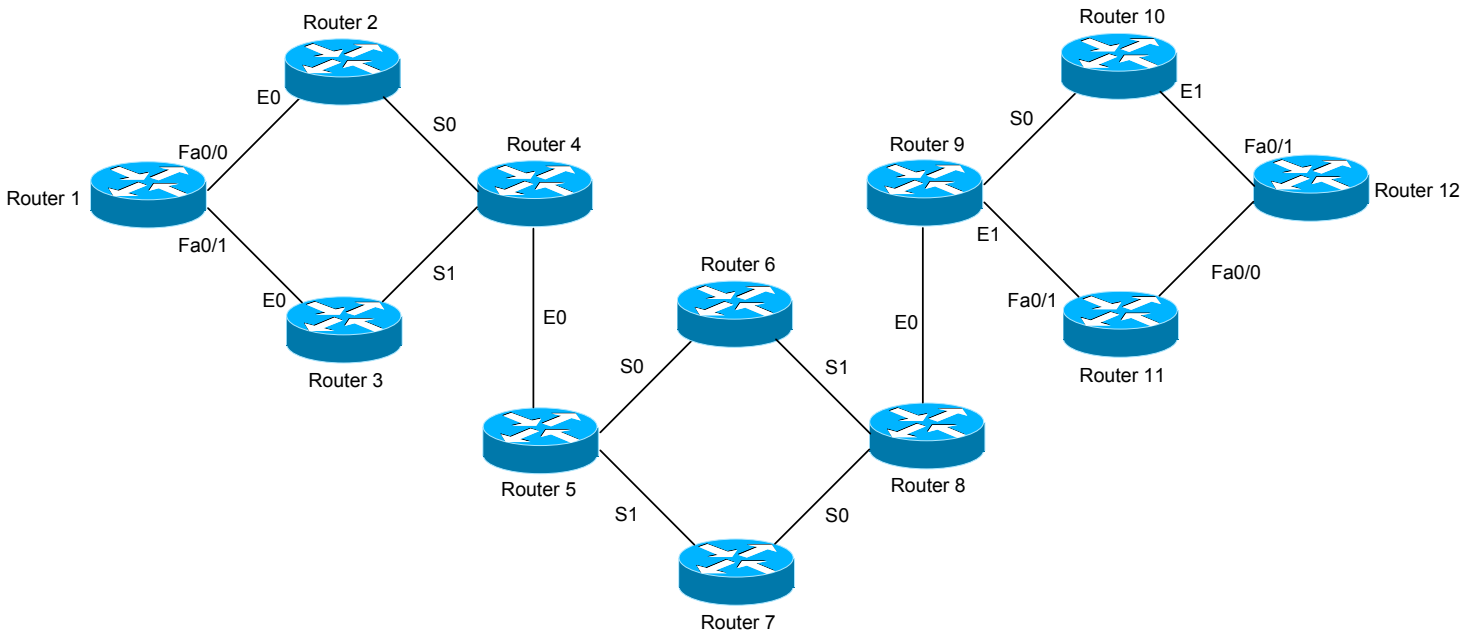


RIP Objectives:

- Change the RIP version to v2. Are all networks reachable now? Why or why not? What additional command(s), if any, are necessary to make all networks reachable?

- Configure all interfaces to be passive. Direct RIP to only send unicast updates to its neighbors.

Advanced RIP – Lab



RIP Objectives:

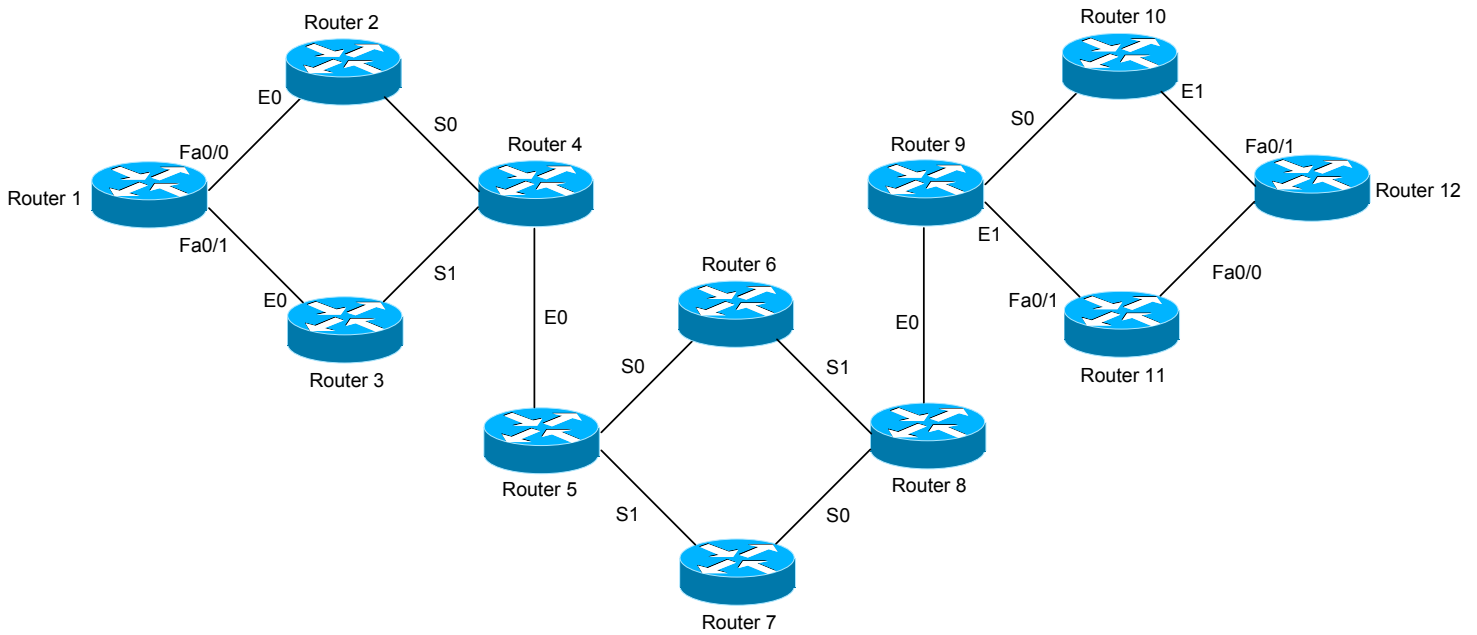
8. Configure md5 authentication between all neighbors. Use a key of “cisco”.

9. Use the rip debugging commands to ensure updates are authenticated and sent as unicasts.

10. Each router should now have a route to Router 1’s and Router 12’s second loopback networks. Alter the RIP metric in such a way that RIP will prefer the *longer* route to those loopback networks.

* * *

Advanced RIP – Lab



RIP Objectives:

11. For fun, alter RIP's timers in such a way to cause utter mayhem on the internetwork. Be creative. 😊

* * *