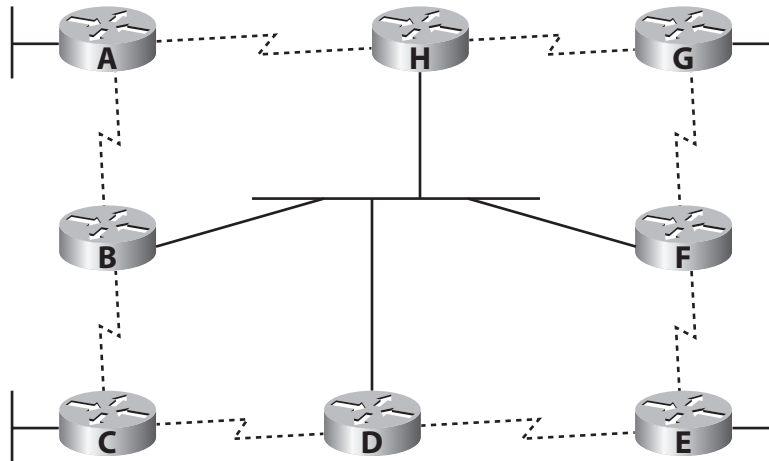


# Troubleshooting Interior Routing

## Topology

You will use the following topology to complete the specified goals.



## Scenario

Unlike the other labs you have completed, this lab outlines major goals for you to complete rather than lists detailed tasks and steps.

- Interconnect the lab equipment to create the specified topology.
- Design and implement an IP subnetting scheme that fulfills the following requirements:
  - The class has been assigned 143.22.89.0/23 for the entire lab network.
  - The subnet design should allocate addresses as efficiently as possible.
  - The backbone LAN (Routers B, D, F, and H) needs to accommodate the existing routers and allow for the possibility of 12 more routers in the near future.
  - The Router A LAN should be able to accommodate 50 PCs and 3 servers.
  - The Router C LAN should be able to accommodate 120 PCs and 6 servers.
  - The Router E LAN should be able to accommodate 13 PCs and 1 server.
  - The Router G LAN should be able to accommodate 40 PCs and 6 servers.
- Enable RIPv2 so that full classless routing information is communicated between all routers.
- Ensure that the most secure form of authentication is used between all RIP peers.
- Complete RIP troubleshooting:
  - The instructor will introduce four errors into the lab network.
  - Find, fix, and document the errors using the separate troubleshooting worksheet.
- Replace your RIPv2 configuration with equivalent OSPF configuration and functionality.
- Complete OSPF troubleshooting:
  - The instructor will introduce four errors into the lab network.
  - Find, fix, and document the errors using the separate troubleshooting worksheet.
- Hand in your troubleshooting worksheet to the instructor.