7-2 Project Two: Network Diagram and Rationale

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CYB-210

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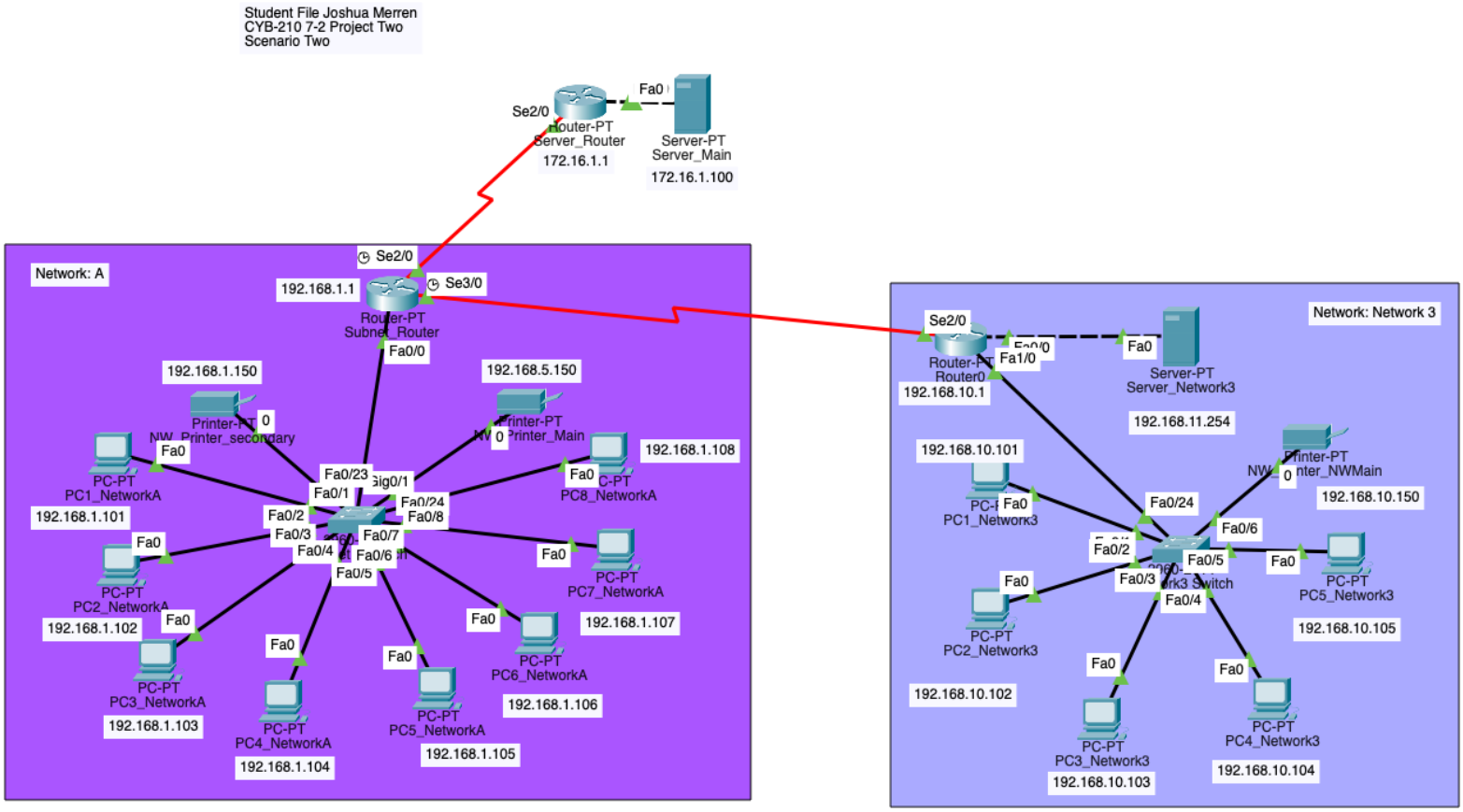
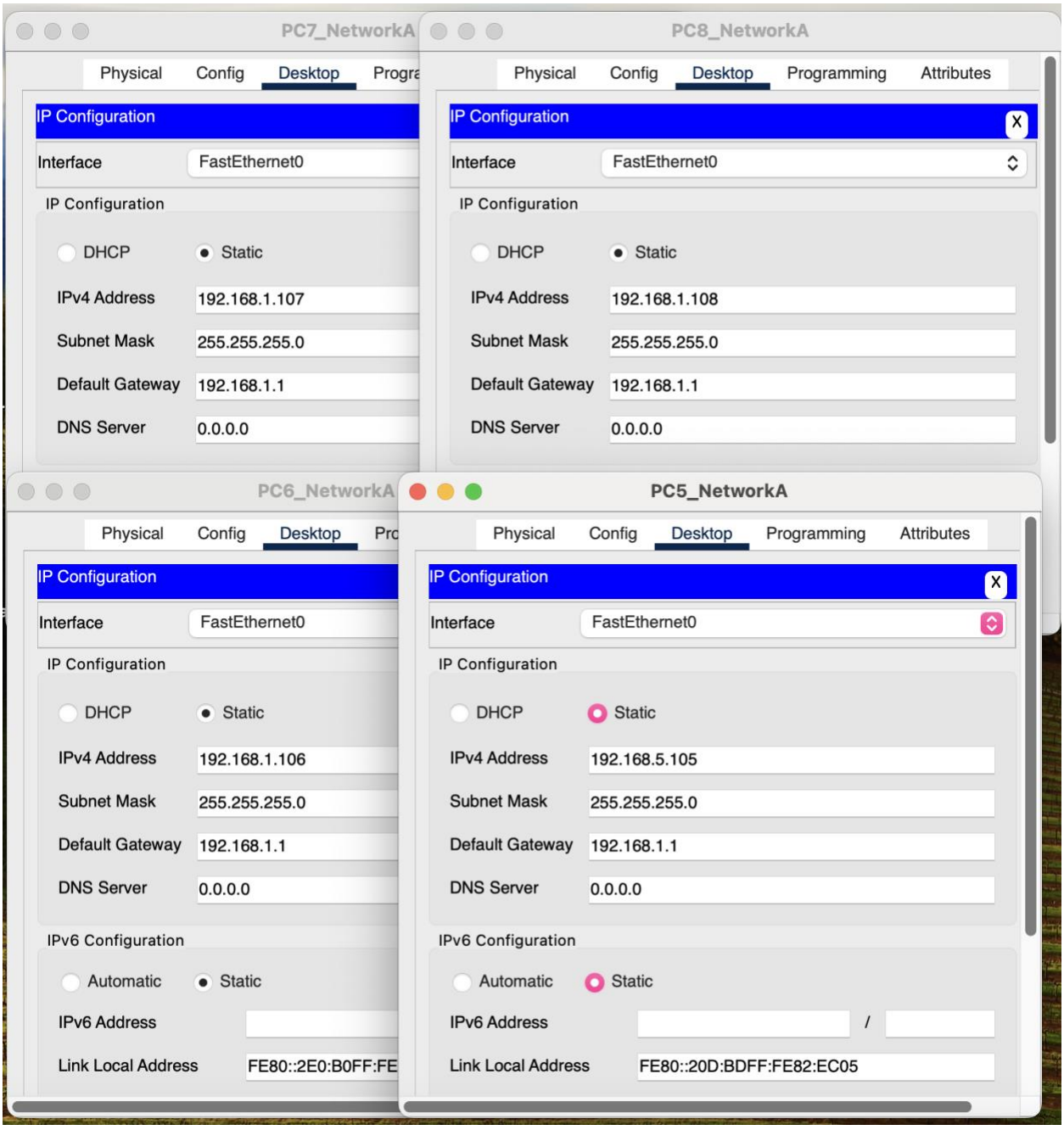
1. For the first step, I combined subnet one and subnet 2. I then added a new router to network 3.

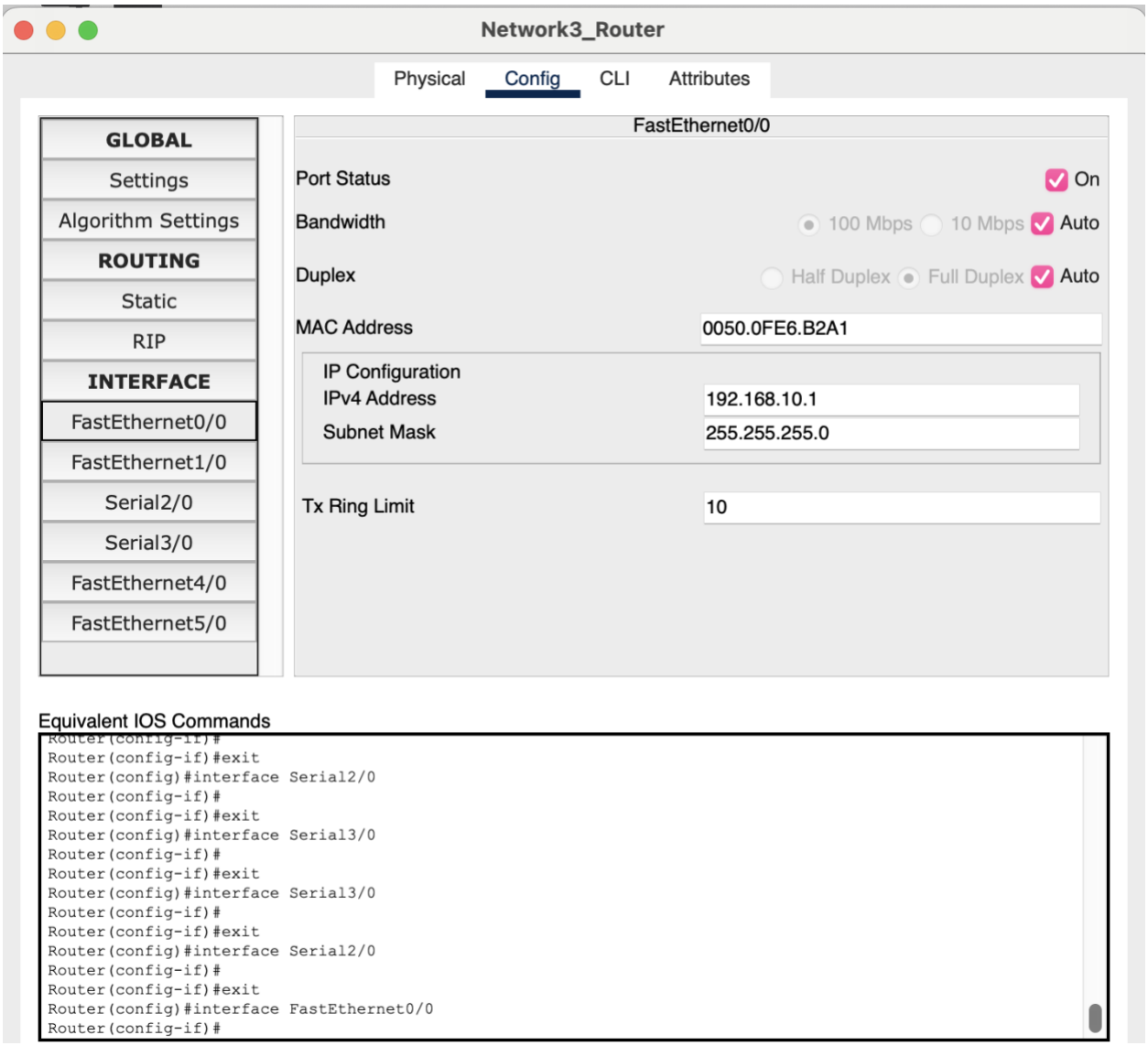


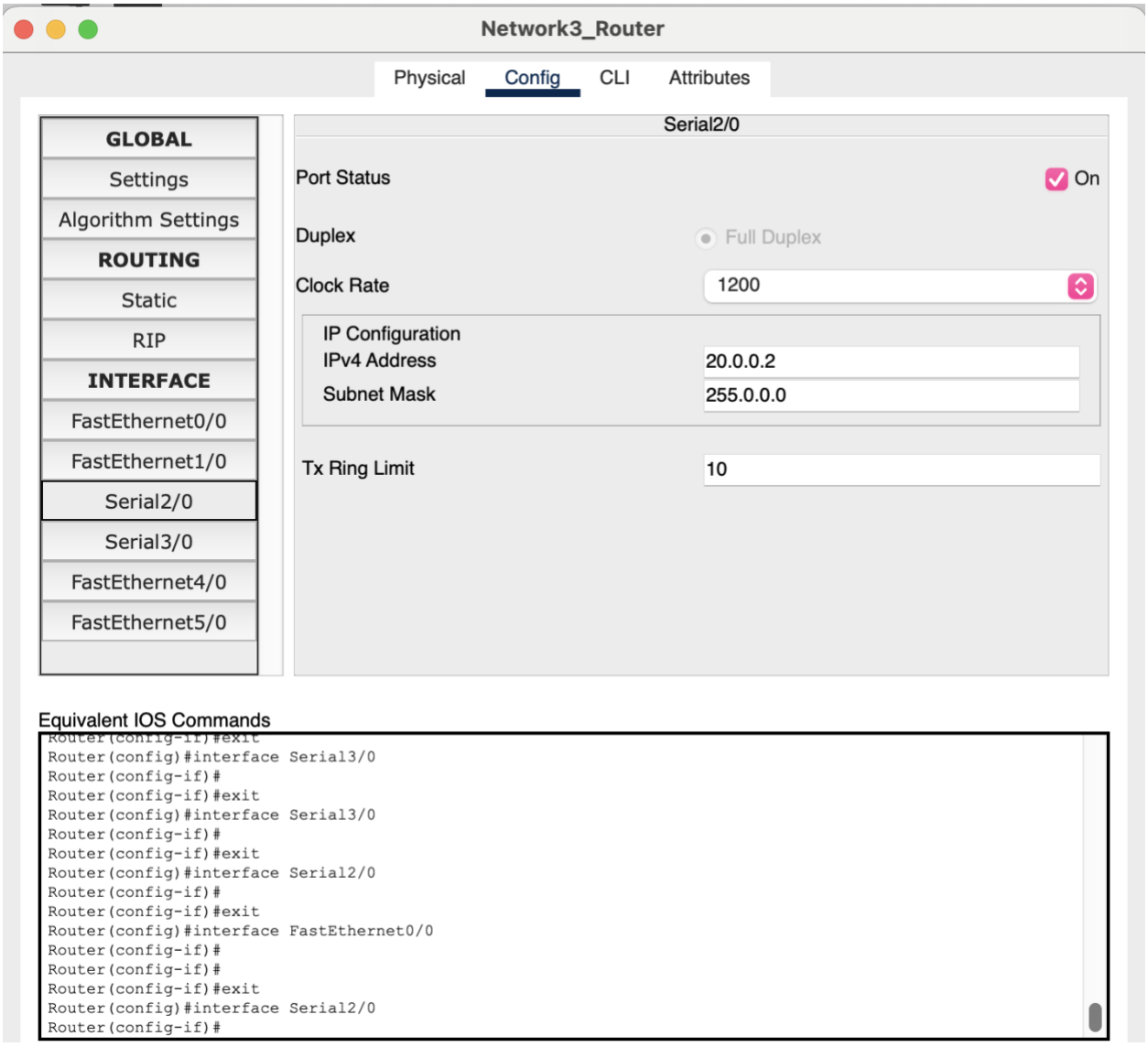
2. I then adjusted the IP addresses and default gateways from the existing PCs and others so they could all connect to the main server.



I then had to set up Network 3 and make it fully functional. To make that work I had to add a new router between the network and the switch. I connected Fa0/0 to Fa0 of the server, and Fa1/0 to Fa0/24 of the switch then finally the router on Se2/0 to Se3/0 of subnet_Router. I then configured a static IP of 192.168.11.1 for the server connection and for the connection to the

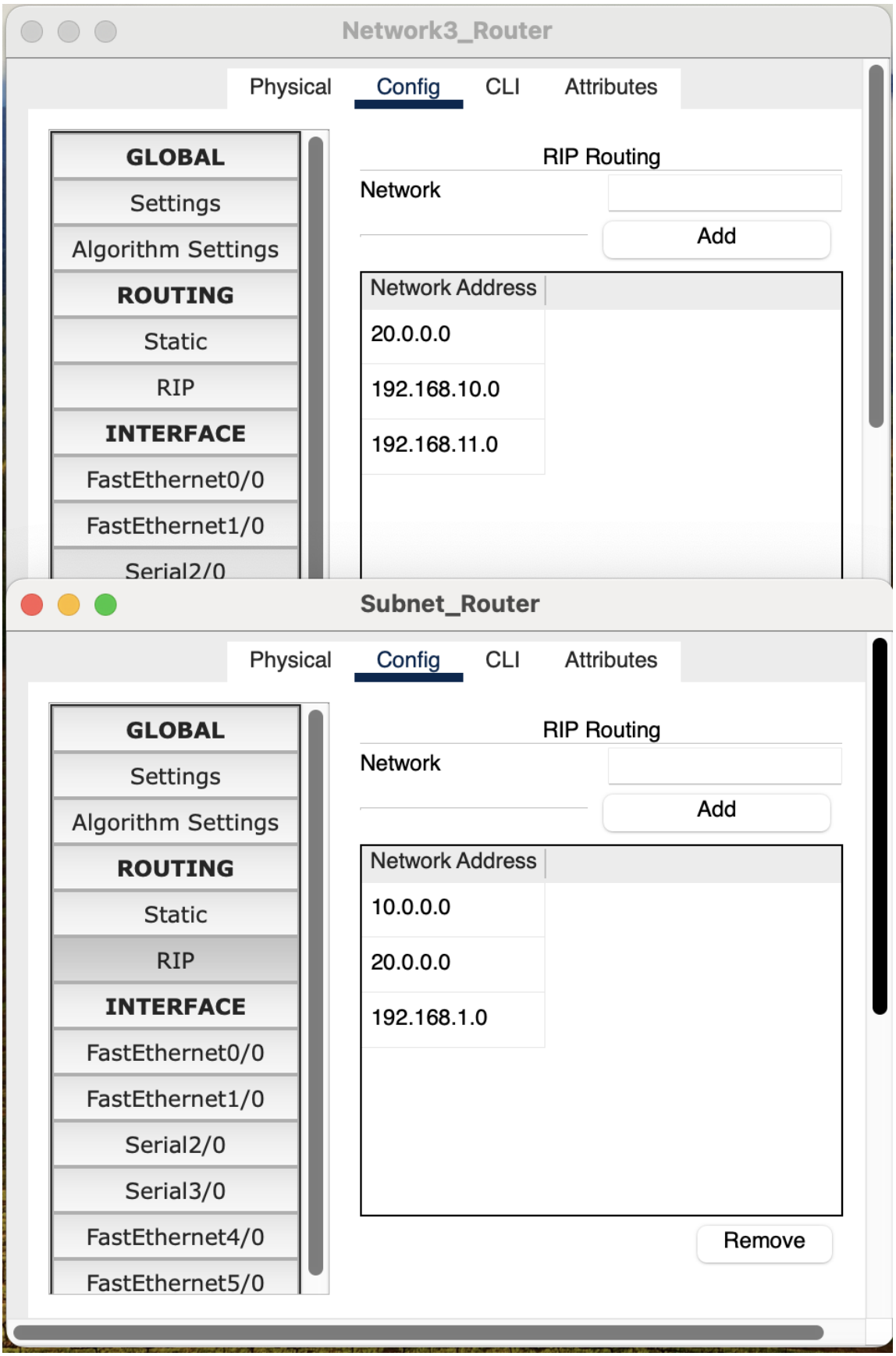
switch I configured IP 192.168.10.1. For the connection back to the subnet_Router I configured the IP 20.0.0.2. we used the no shutdown command to bring up the connections for all.



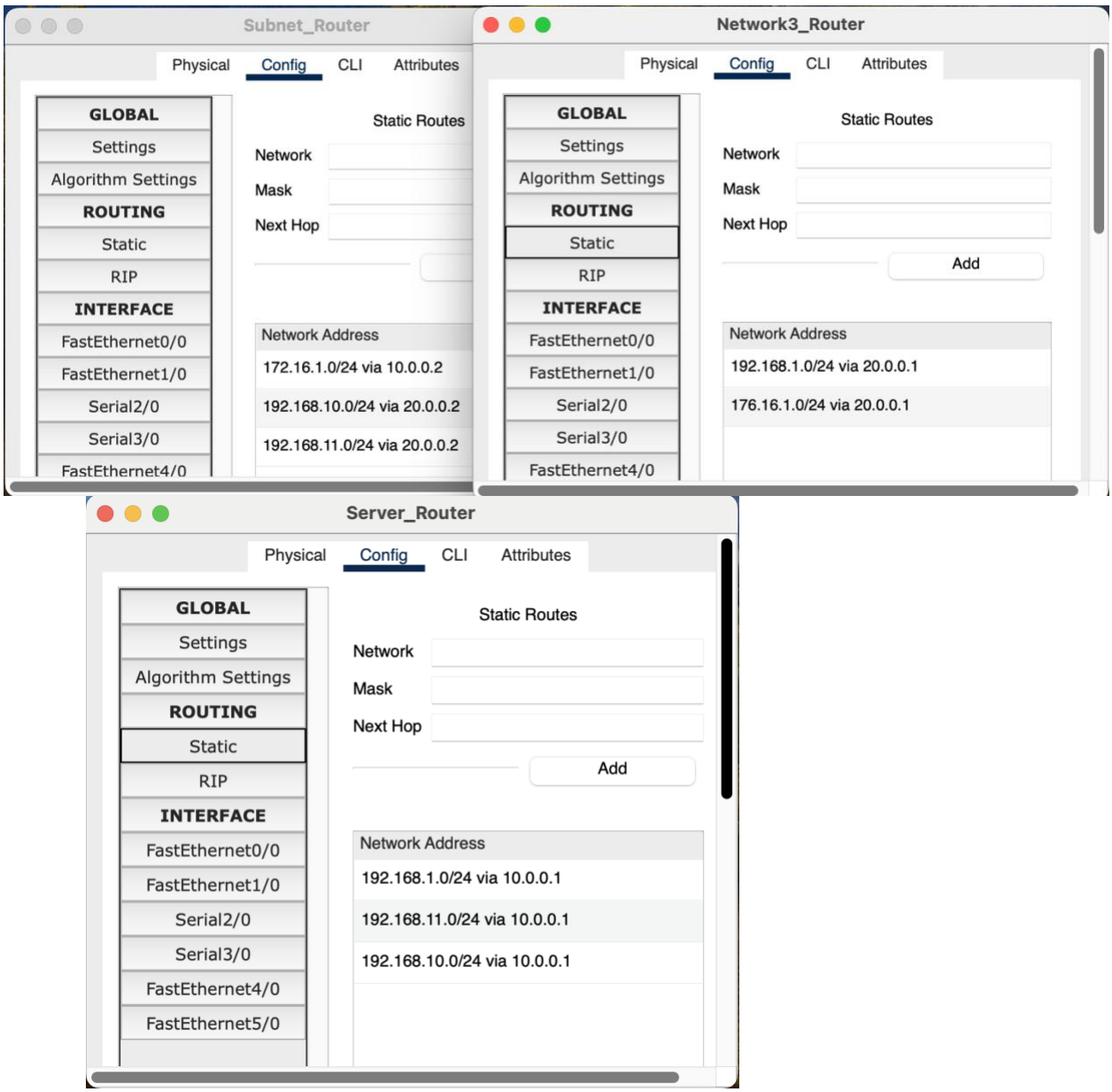


3. I then adjusted the IP addresses for the PCs in network 3 to the new IP addresses. Below is the first four PCs on the network that were changed to the new IP addresses.

I then changed the RIP routing on the Subnet_Router to 20.0.0.0 and removed the old address 192.168.5.0. I also did the same thing for Network3_Router.


Network3_Router
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
RIP Routing
Network
Add
Network Address
20.0.0.0
192.168.10.0
192.168.11.0
Subnet_Router
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
RIP Routing
Network
Add
Network Address
10.0.0.0
20.0.0.0
192.168.1.0
Remove

I then went and changed the static routing on all routers. To do this you have to change the network addresses, mask, and the next hop for the Subnet_Router and Server_Main



I then activated DHCP and DNS on both servers to help assist with active connections, Lastly static routes we created to help the whole network communicate with each other while keeping them separate and secure.