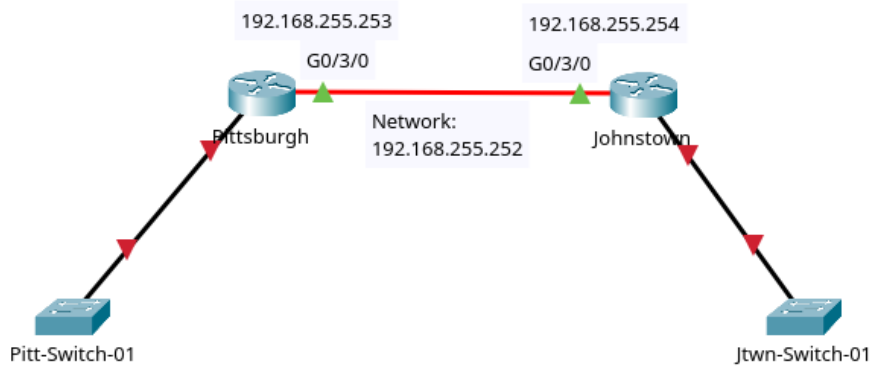
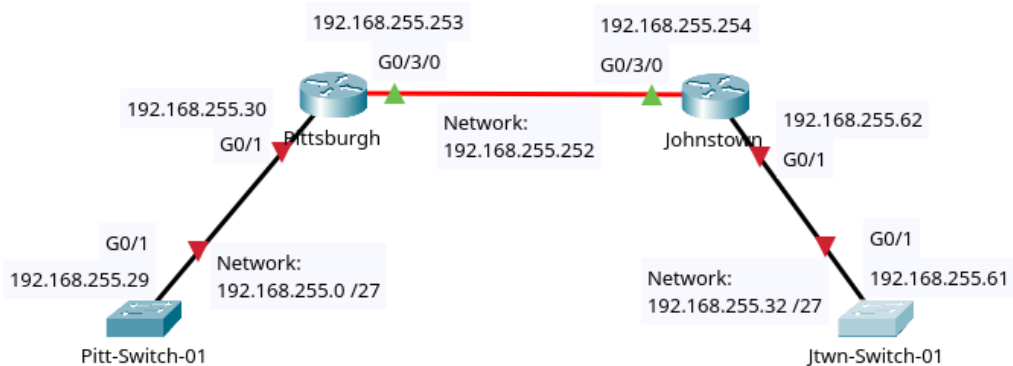


In this lab we will connect two 2960 network switches:

- Connect and configure the network switches.
- Plan the network and subnet.
- Configure management IP addresses on the switches.
- Configure router interfaces with IP addresses.
- Add static routes to connect the networks.



1. Drag and drop two 2960 switches onto the canvas near your existing routers.
2. Change their names on the topology.
3. In the connections tab, select the Copper Straight-through Cable.
 - a. Ctrl + Left Click Pitt-Switch-01 and choose port G0/1.
 - b. Ctrl + Left Click Pittsburgh and choose G0/1.
 - c. Repeat for the second router.
4. Plan and notate for the topology:
 - a. Interfaces.
 - b. IP addresses.
 - c. Networks and subnets.



5. Configure the hostnames of the switches:

- a. Enable
- b. Configure terminal
- c. Hostname [**NAME**]

Press RETURN to get started!

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname Pitt-Switch-01
Pitt-Switch-01(config)#
```

6. Configure the management IP for the switches:

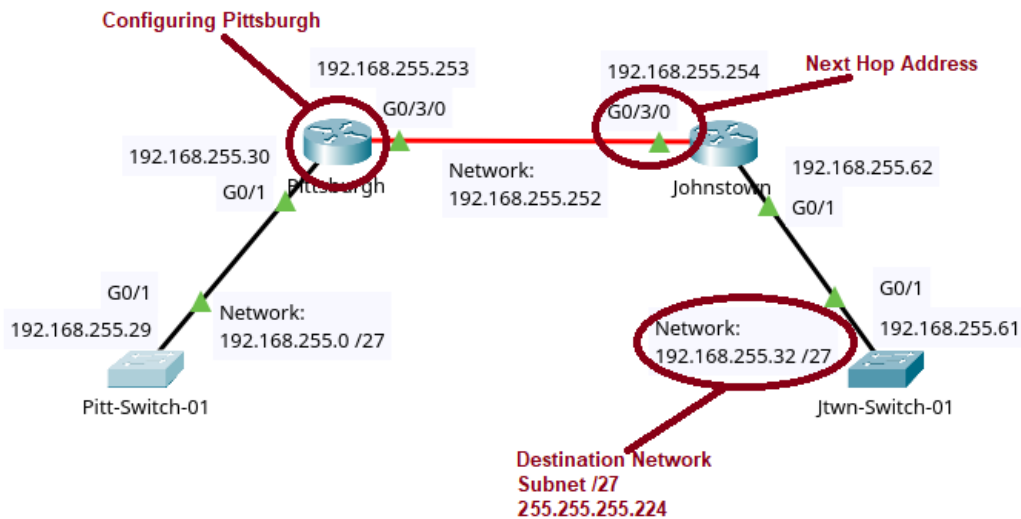
- a. IP default-gateway [**ROUTER INTERFACE CONNECTED TO SWITCH**]
- b. Interface Vlan1
- c. IP address [**IP ADDRESS**] [**SUBNET MASK**]
- d. No shutdown

```
Pitt-Switch-01>enable
Pitt-Switch-01#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Pitt-Switch-01(config)#interface vlan1
Pitt-Switch-01(config-if)#ip address 192.168.255.29 255.255.255.224
Pitt-Switch-01(config-if)#no shutdown
```

7. Configure IP address on router interfaces connected to the switches.

- a. Make sure to Left Click your router icon.
- b. Enable
- c. Configure terminal
- d. Interface g0/1
- e. Ip address [**IP ADDRESS**] [**SUBNET MASK**]
- f. No shutdown

```
Pittsburgh>enable
Pittsburgh#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Pittsburgh(config)#interface g0/1
Pittsburgh(config-if)#ip address 192.168.255.30 255.255.255.224
Pittsburgh(config-if)#no shutdown
```



8. Configure static routes on both routers.
 - a. Enable
 - b. Configure terminal
 - c. IP route [**DESTINATION NETWORK**] [**SUBNET MASK**] [**NEXT HOP IP ADDRESS**]

```
Pittsburgh>enable
Pittsburgh#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Pittsburgh(config)#ip route 192.168.255.32 255.255.255.224 192.168.255.254
```

```
Johnstown>enable
Johnstown#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Johnstown(config)#ip route 192.168.255.0 255.255.255.224 192.168.255.253
```

9. Ping from Pitt-Switch-01 to Jtwn-Switch-01 to check connectivity.

```
Pitt-Switch-01(config)#do ping 192.168.255.61

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.255.61, timeout is 2 seconds:
.....!
Success rate is 20 percent (1/5), round-trip min/avg/max = 0/0/0 ms

Pitt-Switch-01(config)#do ping 192.168.255.61

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.255.61, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms
```

10. Save running-config to startup-config on both routers and both switches.

```
Pittsburgh#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
```