1. **Connect Devices:**
   * Connect Router1 to Router2 using Copper Cross-Over.
   * Connect Router1 to Switch0 and Router2 to Switch1 using Copper Straight-Through cables.
   * Connect each PC to its respective switch.

**2. Assign IP Addresses**

* **Router1:**
  + GigabitEthernet0/0: IP Address: 192.168.1.1, Subnet Mask: 255.255.255.0
  + GigabitEthernet0/1: IP Address: 172.16.1.1, Subnet Mask: 255.255.0.0
* **Router2:**
  + GigabitEthernet0/0: IP Address: 192.168.2.1, Subnet Mask: 255.255.255.0
  + GigabitEthernet0/1: IP Address: 172.16.2.1, Subnet Mask: 255.255.0.0

**PC Configuration**

* PC1 (connected to Router1):
  + IP Address: 192.168.1.2
  + Subnet Mask: 255.255.255.0
  + Default Gateway: 192.168.1.1
* PC2 (connected to Router1):
  + IP Address: 192.168.1.3
  + Subnet Mask: 255.255.255.0
  + Default Gateway: 192.168.1.1
* PC3 (connected to Router2):
  + IP Address: 192.168.2.2
  + Subnet Mask: 255.255.255.0
  + Default Gateway: 192.168.2.1
* PC4 (connected to Router2):
  + IP Address: 192.168.2.3
  + Subnet Mask: 255.255.255.0
  + Default Gateway: 192.168.2.1

**3. Configure BGP on Each Router**

* **Router1 Configuration:**

Enter the following commands in Router1:

scss

Copy code

Router> enable

Router# configure terminal

Router(config)# interface Serial0/0/0

Router(config-if)# ip address 192.168.1.1 255.255.255.0

Router(config-if)# no shutdown

Router(config-if)# exit

Router(config)# interface GigabitEthernet0/0

Router(config-if)# ip address 192.168.1.1 255.255.255.0

Router(config-if)# no shutdown

Router(config-if)# exit

Router(config)# router bgp 65001

Router(config-router)# neighbor 192.168.1.2 remote-as 65002

Router(config-router)# network 192.168.1.0 mask 255.255.255.0

Router(config-router)# end

* **Router2 Configuration:**

Enter the following commands in Router2:

scss

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Router> enable

Router# configure terminal

Router(config)# interface Serial0/0/0

Router(config-if)# ip address 192.168.1.2 255.255.255.0

Router(config-if)# no shutdown

Router(config-if)# exit

Router(config)# interface GigabitEthernet0/0

Router(config-if)# ip address 192.168.2.1 255.255.255.0

Router(config-if)# no shutdown

Router(config-if)# exit

Router(config)# router bgp 65002

Router(config-router)# neighbor 192.168.1.1 remote-as 65001

Router(config-router)# network 192.168.2.0 mask 255.255.255.0

Router(config-router)# end

**4. Verify the BGP Configuration**

* **Check BGP Neighbor Relationship:**

On Router1:

arduino

Copy code

Router# show ip bgp summary

On Router2:

arduino

Copy code

Router# show ip bgp summary

You should see that each router recognizes the other as a BGP neighbor.

* **Test Connectivity:**
  + From PC1, ping 192.168.2.2 (PC2).
  + From PC2, ping 192.168.1.2 (PC1).

The pings should succeed, indicating that the BGP configuration is correct and the routers are exchanging routes properly.

**Summary**

1. **Set Up the Network Topology**: Add routers, switches, and PCs; connect them.
2. **Assign IP Addresses**: Configure IP addresses on interfaces and PCs.
3. **Configure BGP on Each Router**: Use commands to set up BGP neighbors and advertise networks.
4. **Verify the BGP Configuration**: Check BGP neighbors and test connectivity.

This guide provides a simple and clear way to configure BGP in Cisco Packet Tracer. If you follow these steps, you'll have a basic BGP setup to exchange routing information between two autonomous systems.