Network and CyberSecurity Essentials

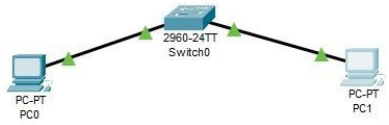
Design and Connect a Simple Network, and the datamine IP addresses.

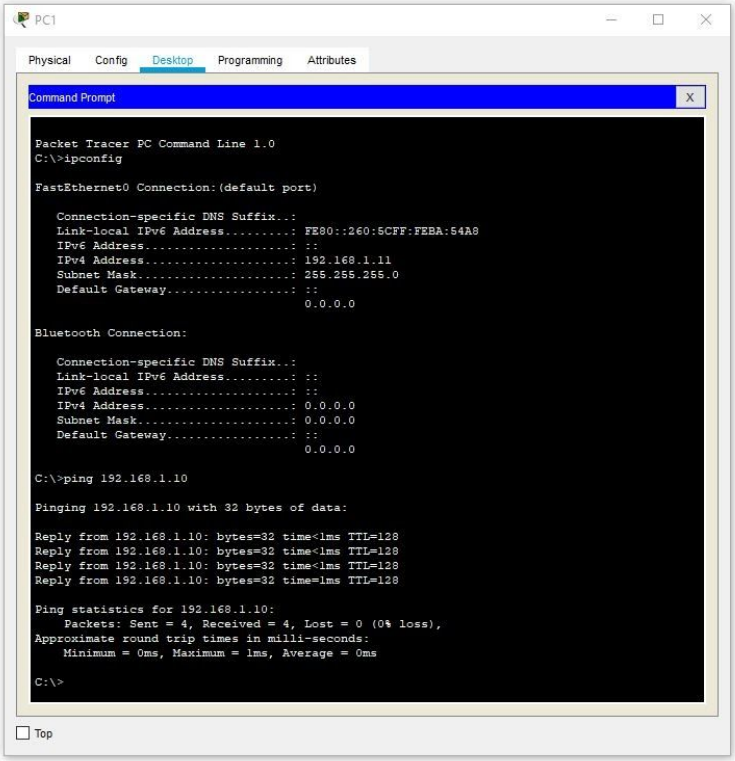
- **Step 7**

a. **Ipconfig | What is the IP address of the computer?**
   192.169.1.10

b. **What is the subnet mask of the computer?**
   255.255.255.0

c. **Ping 192.169.1.11 (Other PC's IP Address). Was the ping successful?**
   Yes.



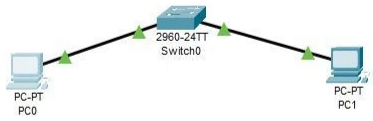


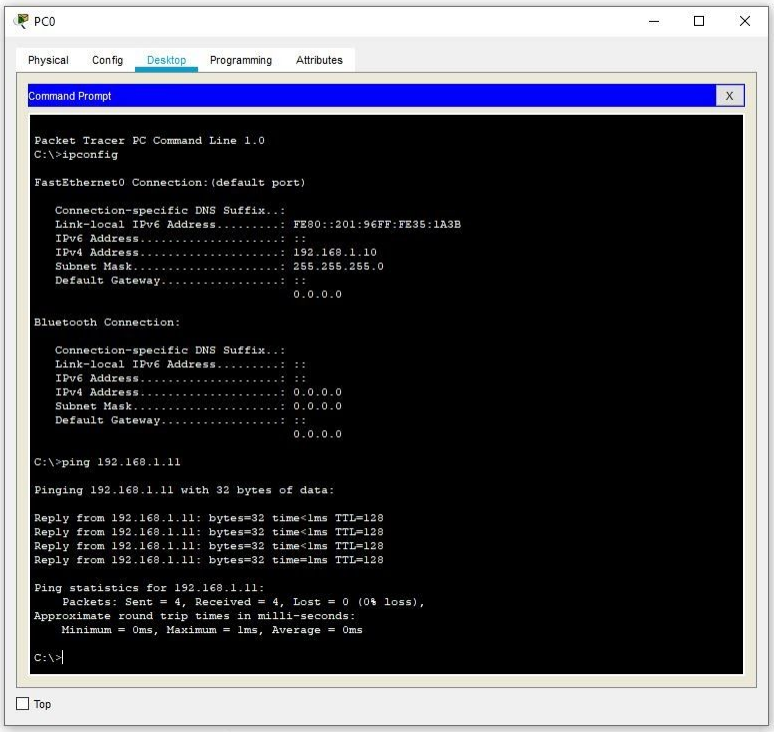
- **Step 8**

d. **Ipconfig | What is the IP address of the computer?**
   192.169.1.11

e. **What is the subnet mask of the computer?**
   255.255.255.0

f. **Ping 192.169.1.10 (Other PC's IP Address). Was the ping successful?**
   Yes.





- **Is your IP Address Automatically configured or Manually Configured?**
  Automatic due to the VPN masking the my IP Address.

- **Type ping www.google.com and press Enter. Were the ping results successful?**
  Yes, the connection was successful to Google.

- **Type tracert www.google.com and press Enter. Record your reflection?**
  The tracert jumped 15 times through multiple exchanges before reaching Google’s

servers.

```
C:\Users\simon>tracert www.google.com

Tracing route to www.google.com [216.58.206.100]
over a maximum of 30 hops:

  1    25 ms    21 ms    24 ms  client.strong-oh2.reliablehosting.com [89.238.135.56]
  2    21 ms    22 ms    22 ms  vlan229.core-dc2-agg1.man4.uk.m247.com [89.238.135.49]
  3    21 ms    22 ms    21 ms  te-12-1-0.core-dc2.man4.uk.m247.com [83.97.21.136]
  4    72 ms    27 ms    27 ms  xe-3-0-2-0.core1.lon2.uk.m247.com [77.243.185.215]
  5    41 ms    41 ms    41 ms  89.44.212.110
  6    38 ms    39 ms    39 ms  37.120.128.253
  7    40 ms    38 ms   377 ms  no-mans-land.m247.com [185.206.226.71]
  8    38 ms    39 ms    40 ms  108.170.252.18
  9   198 ms   195 ms    80 ms  209.85.242.79
 10    39 ms    39 ms    39 ms  209.85.142.96
 11    40 ms    39 ms    39 ms  209.85.142.167
 12    39 ms    67 ms    38 ms  216.239.58.2
 13    39 ms    39 ms    39 ms  108.170.246.129
 14    39 ms    39 ms    46 ms  216.239.58.221
 15    38 ms    37 ms    38 ms  lhr25s14-in-f4.1e100.net [216.58.206.100]

Trace complete.
```

During this lab, we have learnt how to configure and set a static IP address on two end user devices, and connect them via a switch in Packet Tracer. Using Command Prompt we can identify and collect these addresses via ‘ipconfig’, in addition to using tracert and ping as support tools.

With Ping we can attempt to send packets to another device to see if we can connect to it, this is useful during troubleshooting. Tracert can also be used to identify the route a packet is taking to reach the destination.

We have also started to cover DHCP, Dynamic Host Configuration Protocol, for assigning IP addresses to a device automatically.