CO513 - Lab 01
Introduction to Cisco Packet Tracer

ACTIVITY 2 - ADD TWO PCS TO THE LAYOUT AND CONNECT.

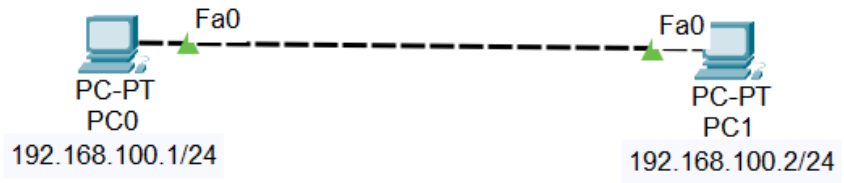

FIGURE 1 : Connect 2 pcs in packet tracer

PROCEDURE:

- Connect PC0 and PC1 using a Copper cross over cable
- Open a command prompt at PC0 and try to ping the PC1 without setting up IPs and subnets

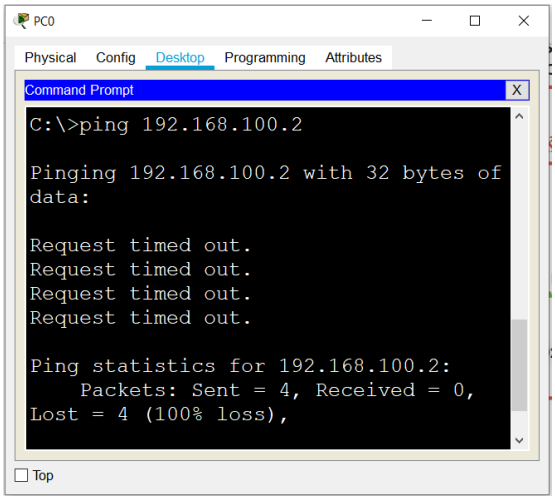

FIGURE 2 : Ping PC0 from PC1 without setting up IPs

- Observation : The ping request not send to PC1. Because in this scenario PC1 is unreachable to PC0
- Setting up IPs and subnets of the both PC0 and PC1

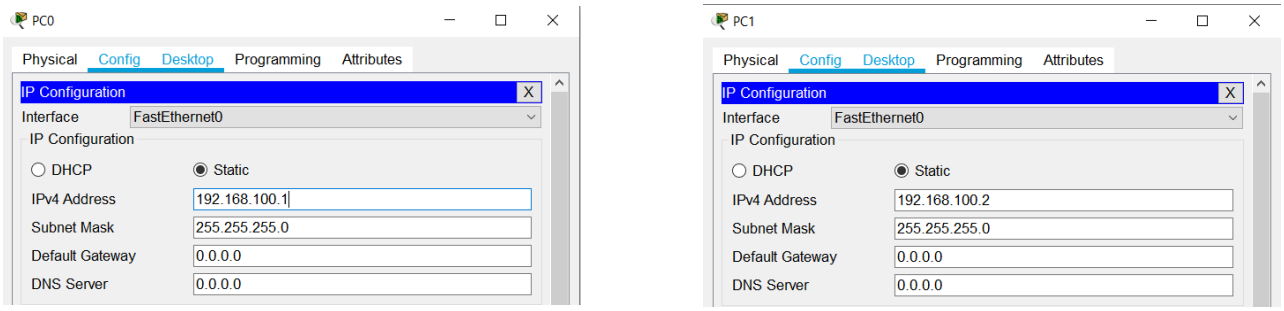

FIGURE 3 : IP Configurations of PC0 and PC1

- Open a command prompt at PC0 and try to ping PC1

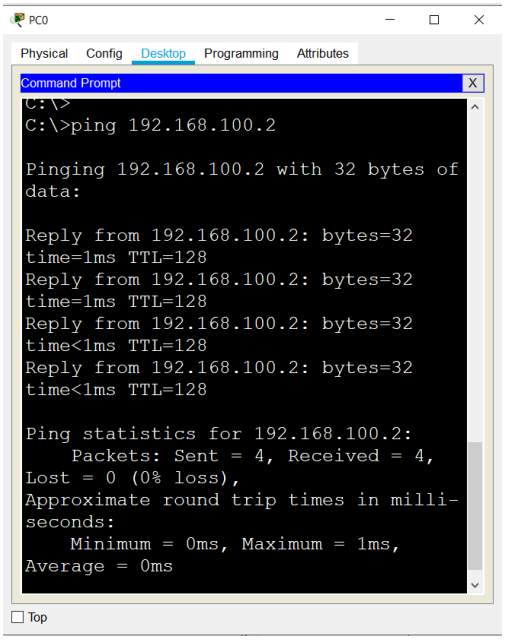

FIGURE 4 : PIng PC1 from PC0 after setting up IPs

- Observation : The replies for the ping request are received

EXPLAINATION AND SOLUTION:

The connection between PC0 and PC1 are not established only the PC0 and PC1 are available to communicate when the physical connection type was copper cross over cable which uses T568B wiring standard. This physical connection allows alike devices to communicate. Once the physical cabling is done, the both ends cannot communicate each other due to both devices are unknown to each other. Therefore it causes the ping requests are failed (Figure 2). After each device are identified using IPs the both PCs able to communicate (Figure 4).

- Note :
  However Auto MDI - X ports on newer Network Interface cards able to detect if the connection would require a crossover or straight through and automatically chooses the MDI or the MDI-X to properly match the other end of the link.

ACTIVITY 3 - CREATE THE NETWORK SHOWN BELOW

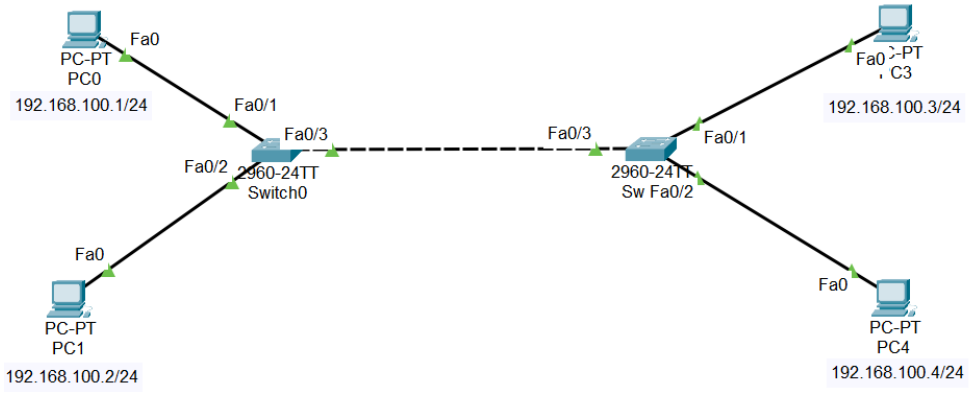

FIGURE 5 : Network described in the Activity 3

IP CONFIGURATION:

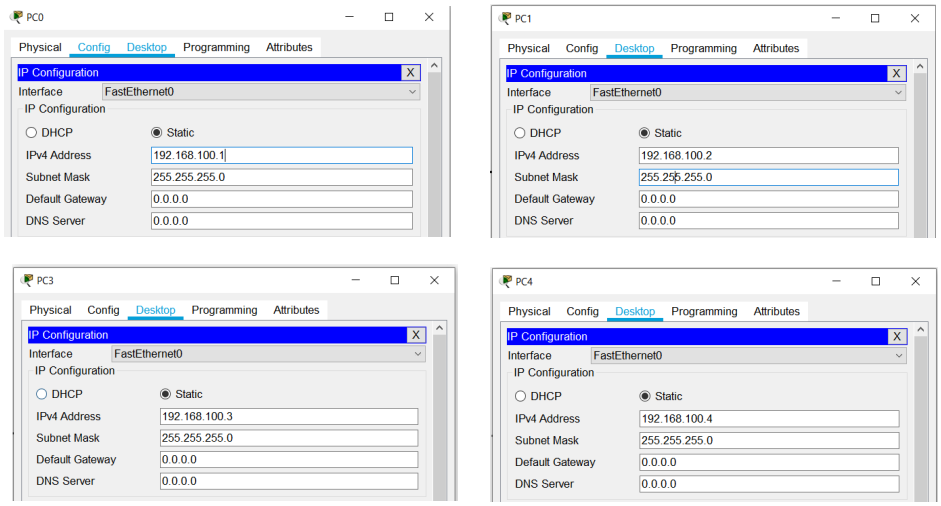

FIGURE 6: IP Configuration in PC0, PC1, PC2, PC3

SWITCH TO THE SIMULATION MODE AND ADD A FILTER TO LIST ONLY PING REQUEST PACKETS

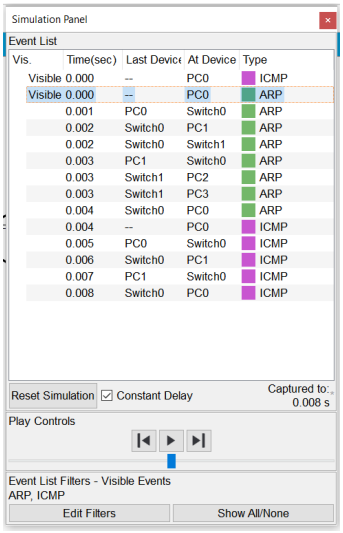

FIGURE 7: Filtered Ping requests packets in Realtime

START THE SIMULATION. THEN, OPEN A COMMAND PROMPT AT PC1 AND PING THE PC3. TAKE A SCREENSHOT DURING THE SIMULATION.

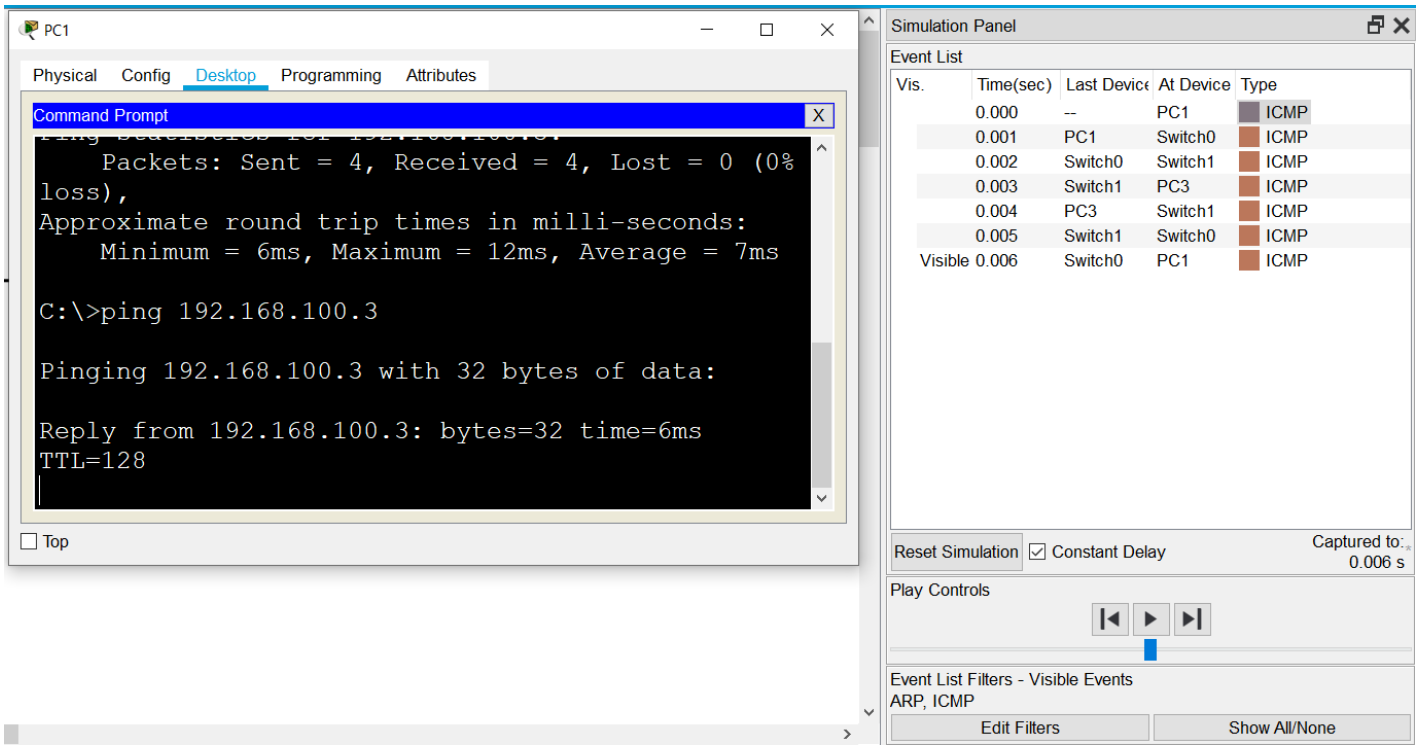

FIGURE 8: Simulation Panel Represents the ICMP packet transfer between PC1 and PC3

- Please Note that in the first ping command execute before the ARP packet transferring not happened

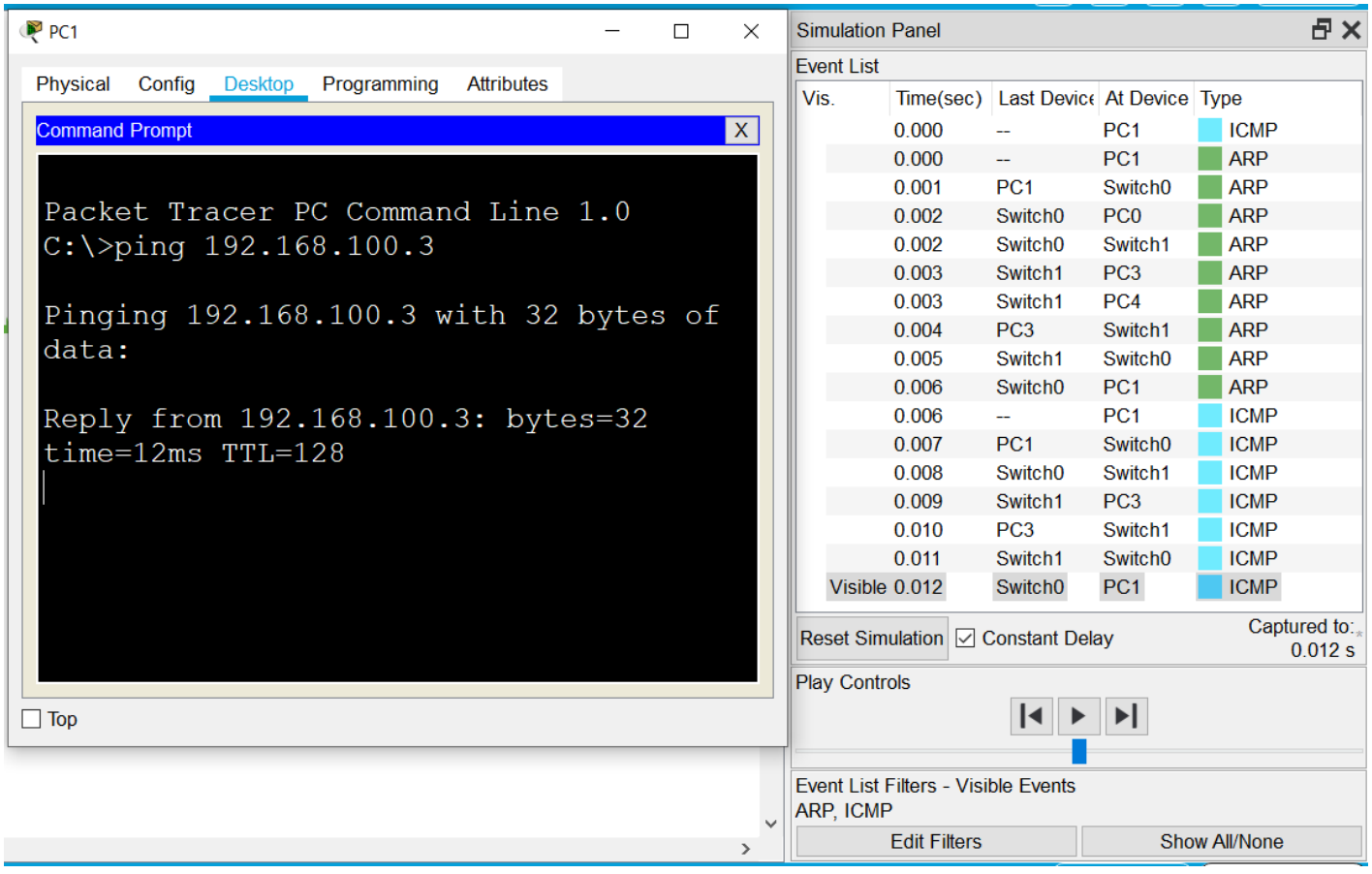

FIGURE 9: Simulation Panel Represents the ICMP packet transfer between PC1 and PC3

- This Figure 9 represents the ICMP packet transfer in Ping command when the PC1 do not know the MAC address of the PC3 then the ARP packet transmission also displayed here.