**3.7.10 - Using Wireshark to View Network Traffic**

**1. Capturing and Analyzing Local ICMP Traffic:**

* **Source MAC address:** Matches your PC’s interface MAC address.
* **Destination MAC address:** Matches the MAC address of the pinged PC.
* **How does your PC obtain the MAC address of the other PC?**
  + Through an **ARP (Address Resolution Protocol) request**.

**2. Capturing and Analyzing Remote ICMP Traffic:**

* **IP addresses:**
  + [www.yahoo.com](http://www.yahoo.com) → **(obtain from Wireshark)**
  + [www.cisco.com](http://www.cisco.com) → **(obtain from Wireshark)**
  + [www.google.com](http://www.google.com) → **(obtain from Wireshark)**
* **MAC addresses of these websites:**
  + **Matches your router’s MAC address**, because your PC only communicates directly with the router, not with the destination servers.

**3. Why does Wireshark show the actual MAC address of local hosts but not remote hosts?**

* Because **remote packets go through your router, and your PC only knows the MAC address of the next-hop device (the router), not the final destination**.