Networks Lab 7 | Dabin Lee

1. While using wireshark on SUTD_Student, what did you see/not see? In particular, did you see other people's traffic, and what kind?

   I can observe my own traffic, along with some LLC and HPEXT packets from Alcatel-_c4:46:ae to different device with IntelCor_91:98:c0, c1, 2c and d0. LLC and HPEXT traffics seem to be from other people's devices.

2. While connected to SUTD_Guest, do you see different kind of traffic? Why?

   While connected to SUTD_Guest, I was able to observe some traffics from other users with IP addresses. The types of traffic included MDNS, NTP, DNS and SSDP and were not encrypted.

3. Using the monitor mode, what kind of traffic do you see, and why?
   a. Can you see queries from non-SUTD ESSIDs?

      Yes. I see some queries from non-SUTD ESSIDs like *janice, shanshan* and *augusthome.*
   b. Why do you see this?
      It is because the non-SUTD ESSIDs are broadcasting on the 802.11 domain, which can be captured by the network card.
   c. Why is the source address of ACKs the way it is?
      It is because of the purpose of the packets. ACK packets do not require replies as its purpose is to refrain others from transmission. Since no reply is needed, source does not have to be identified.

4. How many networks/BSSIDs did you see with kismet? Which channels were used?

   There were about 40 networks/BSSIDs displayed with kismet. Mainly, networks were using 2.4 GHz wireless channels 1, 6 and 11. Also, 5 GHz wireless channels such as 36, 40, 44, 48, 52, 56, 60, 64, 100, 112, 116, 120, 124, 128, 149, 153, 157 and 161 were being used.

5. Did ad-hoc mode work for you? Was TeamB able to ping the server through TeamA?

The ad-hoc mode worked for me. TeamB was able to ping the server through Team A.

6. Did the "router" mode work? How is the setup different from a layer 2 access point?

The router mode also worked. The difference between the router and the layer 2 access point is that the PC used in router mode assigns IP addresses to hosts unlike the layer 2 access point.