

Networks Lab 8 | Dabin Lee

1. Were you able to set up the small ad-hoc network at the start?

Yes.

a. What can you observe in the ad-hoc queries join traffic in wireshark?

You can observe various packets in Babel protocol with messages like "Babel hello ihu", "router-id update", "mh-request" and "nh router-id update."

2. Why could we need a protocol like babel in addition to 802.11 ad-hoc mode?

There is a need for protocols like babel in addition to 802.11 ad-hoc mode because of advanced routing capabilities of protocols like babel are in need.

3. Which layer is babel operating in?

Babel protocol is operating in layer 2 and layer 5, namely link layer and application layer.

4. What network layer protocol does babel use?

Babel uses IPv6, which is on network layer.

5. In babelweb, could you find out the following?

a. What are the neighbors listed?

The neighbors listed are the connected ad-hoc hosts.

b. What are the routes listed

The routes listed

c. What are the redistributed routes?

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.

6. How many networks/BSSIDs did you see with kismet?

Which channels were used?

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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.

7. 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.

8. 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.