Note for trainers: Explain that in many cases an AP will also include a router. In the exercises they are separated for clarity.

The Access Point + Router can be a “Wireless Router” device.

Exercise 1: Layer 2 – The Media Access Layer

Consider the following:

• Does the radio card work properly (inserted correctly, check led lights)?
• Correct drivers
• Correct firmware
• SSID
• WEP/WPA2
• Radio signal
• Use Netstumbler, Wavemon
Exercise 2: Layer 3 – The IP Layer

Consider the following:

• Check whether the client has a local IP address
• Ping the default gateway (DHCP server)
• Check whether duplicate packets exist
• Check your IP settings (DHCP, fix IP)
• Check that you can ping the IP (you might need to change your IP settings)
• Use a network sniffer to see the network flow

Exercise 3: Level 3+ – The Transport Layer and Above

Consider the following:

• Describe the scenario’s routing tables
• Check DNS settings, where should a secondary DNS be placed?
• Is Authentication needed? Where should a Captive Portal be placed?
• Application timeouts, Where can congestion take place?
• Check Proxy settings, Where should a HTTP proxy be placed?
• Using traceroute, troubleshoot in different segments of the network and describe the tests that you can make in each part.