

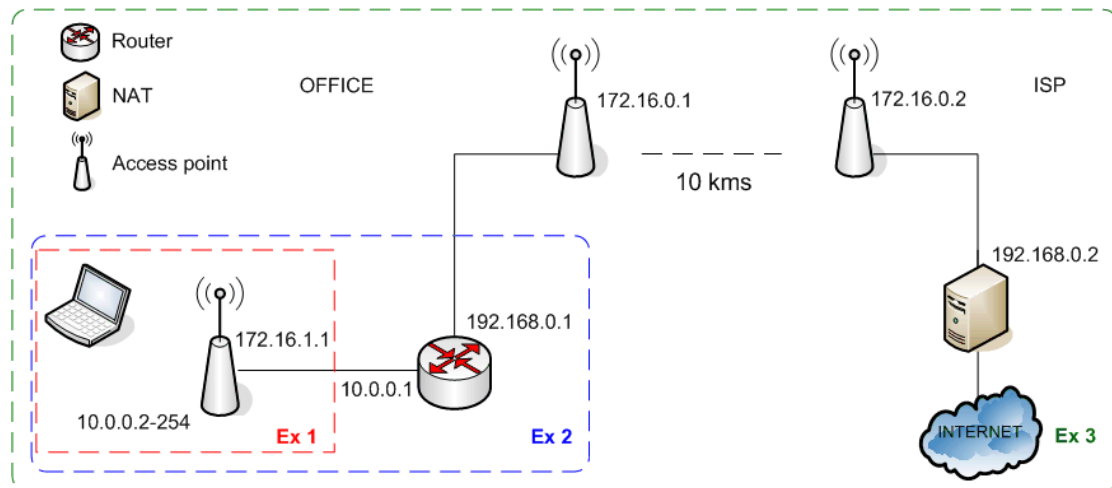
# ITRAINONLINE MMTK

## Wireless Troubleshooting: Exercise Guidelines

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**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.