Live Cracking

This section covers the live attack/cracking labs for personal networks protected by personal WiFi security schemes such as WEP, WPA-PSK and WPA2-PSK. An emulated WiFi environment and monitor mode capable wlan0 is provided to users.

What will you learn?

- Understanding how WEP Cracking works and recovering secret WEP key
- 4-way handshake and WPA/WPA2-PSK passphrase cracking

References:

1. WEP in depth (https://www.pentesteracademy.com/video?id=489)
2. How WEP cracking works (https://www.pentesteracademy.com/video?id=490)
3. How does WPA-PSK work? (https://www.pentesteracademy.com/video?id=489)
4. Cracking WPA-PSK secret passphrase (https://www.pentesteracademy.com/video?id=497)

Labs Covered:

- Pivoting over WiFi: WEP
  In this lab, you will learn to attack a WEP protected WiFi network operating in the vicinity and retrieve WEP key. A non-exhaustive list of activities to be covered includes:
  - Use airodump-ng to capture traffic
  - Use aireplay-ng to replay the ARP packets to increase the frame count
  - Use aircrack-ng to recover the WEP key
  - Connect to the network using wpa_supplicant (with recovered WEP key)
  - Obtain IP address using dhclient
  - Perform Nmap scan to discover the machine on the LAN side of the router.

- Live Cracking: WPA-PSK
  In this lab, you will learn to attack a WPA-PSK protected WiFi network operating in the vicinity and retrieve the secret passphrase. A non-exhaustive list of activities to be covered includes:
  - Use airodump-ng to locate the network and capture traffic
  - Use aireplay-ng to launch deauth attack and disconnect the client to capture the 4-way handshake
  - Use aircrack-ng to launch a dictionary attack and recover the secret passphrase

- Live Cracking: WPA2-PSK
  In this lab, you will learn to attack a WPA2-PSK protected WiFi network operating in the vicinity and retrieve the secret passphrase. A non-exhaustive list of activities to be covered includes:
  - Use airodump-ng to locate the network and capture traffic
  - Use aireplay-ng to launch deauth attack and disconnect the client to capture the 4-way handshake
  - Use aircrack-ng to launch dictionary attack and recover the secret passphrase

- AP-less WPA2-PSK Cracking
  In this lab, you will learn to attack a WPA2-PSK protected WiFi network that is not operating in the vicinity but a device that has used that network is. Perform honeypot attack and retrieve the secret passphrase for that network. A non-exhaustive list of activities to be covered includes:
  - Use airodump-ng to observe the probe requests
  - Use airodump-ng to capture traffic
  - Use Hostapd to create a WPA2-PSK with the same SSID name as the SSID name appearing in probe requests

- [Pivoting over WiFi: WPA PSK]
  In this lab, you will learn to attack a WPA-PSK protected WiFi network operating in the vicinity and retrieve a secret passphrase. A non-exhaustive list of activities to be covered includes:
  - Use airodump-ng to locate the network and capture traffic
  - Use aireplay-ng to launch deauth attack and disconnect the client to capture the 4-way handshake
  - Use aircrack-ng to launch dictionary attack and recover the secret passphrase
  - Connect to the network using wpa_supplicant (with a recovered passphrase)
  - Obtain IP address using dhclient
  - Perform Nmap scan to discover the machine on the LAN side of the router.

Live Cracking: WPA-PSK

Start

Pivoting over WiFi: WEP

Start

Pivoting over WiFi: WPA PSK

Start

Live Cracking: WPA2-PSK

Start

AP-less WPA2-PSK Cracking

Start