OWISAM-DI

Antonio Alonso García

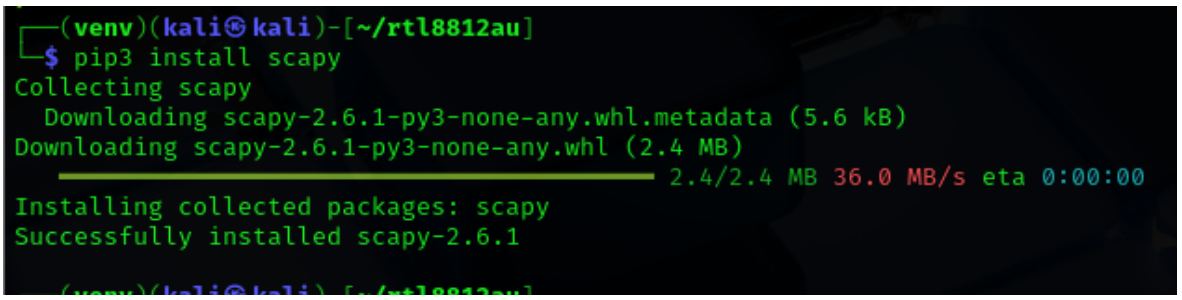
Instalación de Scapy 3
Interfaz modo monitor 3
Código de herramienta OWISAM-DI 4
Comando para ejecutar OWISAM-DI 6
Resultado 6
Ver ayuda 7

Instalación de Scapy:

sudo apt update

python3 -m venv venv
source venv/bin/activate

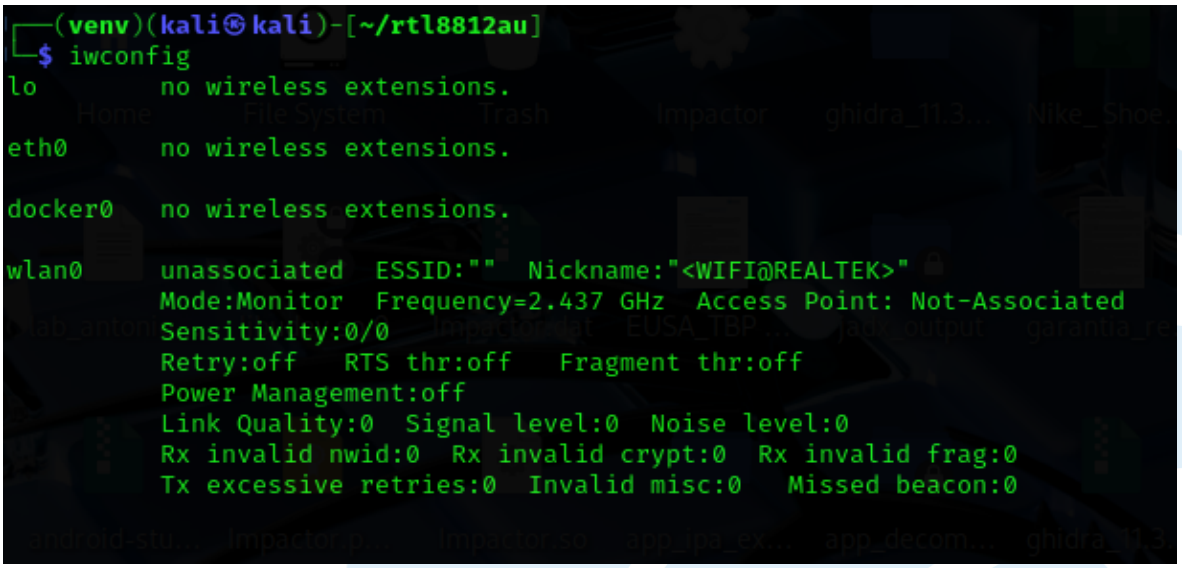
pip3 install scapy



Interfaz modo monitor.

sudo ip link set wlan0 down
sudo iw dev wlan0 set type monitor
sudo ip link set wlan0 up

iwconfig



Código de herramienta OWISAM-DI.

```
#!/usr/bin/env python3
import json
import argparse
import time
import sys
import signal
from scapy.all import sniff, RadioTap
from scapy.layers.dot11 import Dot11, Dot11Beacon, Dot11ProbeReq

# Almacena APs y clientes
aps = {}        # BSSID -> {'ssid','channel','crypto','signal'}
clients = set()  # MACs de clientes

# Maneja Ctrl+C para terminar el script inmediatamente
stop_capture = False
def handle_sigint(signum, frame):
    global stop_capture
    print("\n[!] Captura interrumpida por el usuario. Finalizando...")
    stop_capture = True

signal.signal(signal.SIGINT, handle_sigint)

# Callback para cada paquete capturado
def packet_handler(pkt):
    if pkt.haslayer(Dot11Beacon):
        bssid = pkt[Dot11].addr2
        stats = pkt[Dot11Beacon].network_stats()
        ssid = stats.get('ssid', '')
        channel = stats.get('channel', '')
        crypto = stats.get('crypto', [])
        if not isinstance(crypto, list):
            crypto = [str(crypto)]
        signal_dbm = None
        if pkt.haslayer(RadioTap) and hasattr(pkt[RadioTap], 'dBm_AntSignal'):
            signal_dbm = pkt[RadioTap].dBm_AntSignal
        prev = aps.get(bssid)
        if prev is None or (signal_dbm is not None and prev.get('signal', -999) < signal_dbm):
            aps[bssid] = {'ssid': ssid, 'channel': channel, 'crypto': crypto, 'signal': signal_dbm}

    elif pkt.haslayer(Dot11ProbeReq):
        client_mac = pkt[Dot11].addr2
        if client_mac:
```

```
            clients.add(client_mac)

# Función principal
def main():
    parser = argparse.ArgumentParser(description='OWISAM-DI: Device Discovery')
    parser.add_argument('-i', '--interface', required=True, help='Interfaz en modo monitor')
    parser.add_argument('-o', '--output', required=True, help='Archivo JSON de salida')
    parser.add_argument('--wait-time', type=int, default=10,
                        help='Segundos para detectar primer paquete (0=infinito)')
    args = parser.parse_args()

    output_file = args.output

    print(f"[+] Esperando primer paquete en {args.interface} (timeout {args.wait_time}s)...")
    try:
        sniff(iface=args.interface, prn=packet_handler, store=False,
              timeout=(args.wait_time if args.wait_time > 0 else None))
    except KeyboardInterrupt:
        pass

    if not aps and not clients:
        print(f"[!] No se detectó ningún paquete tras {args.wait_time}s. Saliendo.")
        sys.exit(1)

    duration = 60
    end_time = time.time() + duration
    bar_length = 50
    print(f"[+] Paquetes detectados, iniciando captura de {duration}s...")

    while time.time() < end_time and not stop_capture:
        sniff(iface=args.interface, prn=packet_handler, store=False, timeout=1)
        elapsed = duration - (end_time - time.time())
        filled = int(bar_length * elapsed / duration)
        bar = '#' * filled + '-' * (bar_length - filled)
        sys.stdout.write(f"\r[+] Capturando: [{bar}] {int(elapsed)}/{duration}s")
        sys.stdout.flush()

    print()  # nueva línea al terminar barra de progreso

    # Generar y guardar resultados
    results = {
        'access_points': [
            {'bssid': b, 'ssid': d['ssid'], 'channel': d['channel'],
             'crypto': d['crypto'], 'signal': d['signal']} for b, d in aps.items()
        ],
```

```
        'clients': list(clients)
    }
    with open(output_file, 'w') as f:
        json.dump(results, f, indent=2)
    print(f"[+] Resultados guardados en {output_file}")

if __name__ == '__main__':
    main()
```

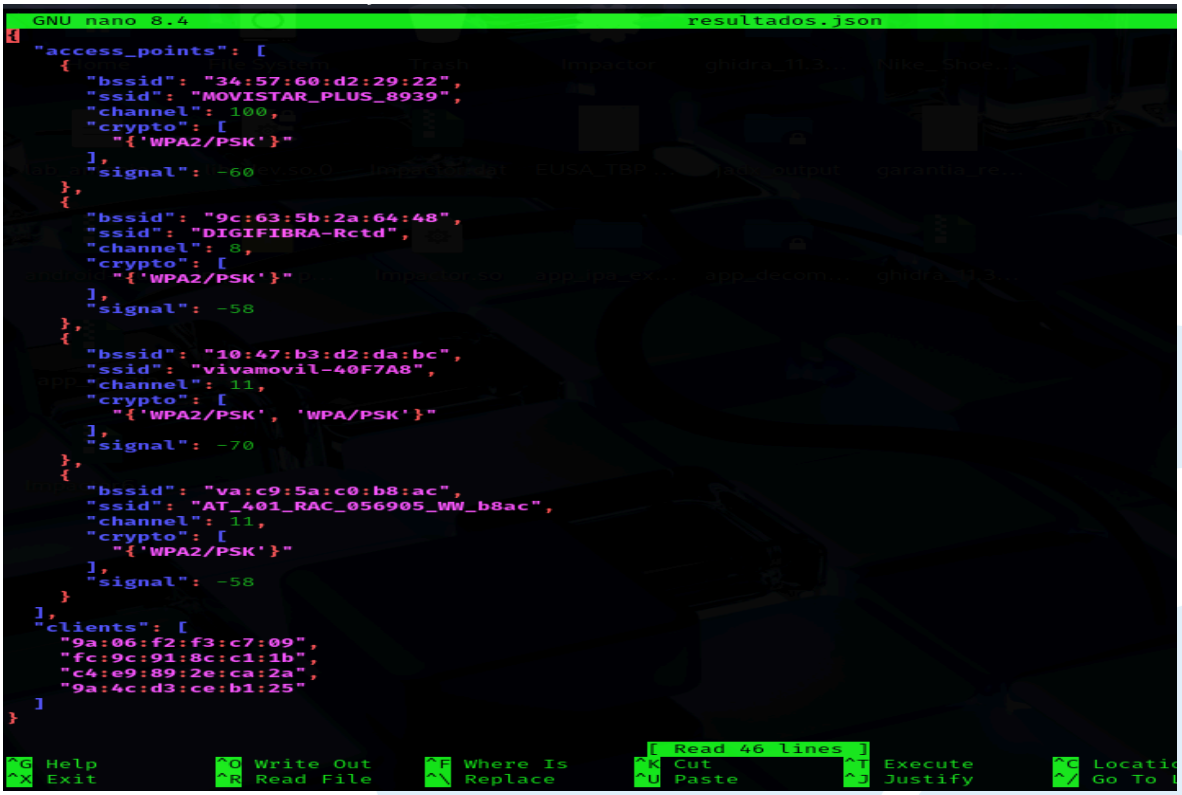
```
┌──(venv)(kali㉿kali)-[~/rtl8812au]
└─$ sudo python3 owisam_di.py   --interface wlan0   --output resultados.json   --wait-time 10
[+] Esperando primer paquete en wlan0 (timeout 10s)...
[+] Paquetes detectados, iniciando captura de 60s...
[+] Capturando: [##################################################] 60/60s
[+] Resultados guardados en resultados.json

┌──(venv)(kali㉿kali)-[~/rtl8812au]
└─$ nano resultados.json
```

Comando para ejecutar OWISAM-DI

sudo python3 owisam_di.py
--interface wlan0
--output resultados.json
--wait-time 10

Resultado



Ver ayuda

python3 owisam_di.py -h