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MAC address changer

Aim: Propose A Python program that could either manually or randomly change the machine's current MAC address, depending on user choice.

Introduction

According to Evans, Martin and Poatsy (2020, *Technology in Action*, 16th edn., p. 480), each network adapter has a physical address, like a serial number on an appliance. This address is called a media access control (MAC) address, and it's made up of six. two-position characters, such as 01:40:87:44:79:A5. (Don't confuse this MAC with the Apple computers of the same name.)

The first three sets of characters (in this case, 01:40:87) specify the manufacturer of the network adapter, and the second set of characters (in this case, 44:79:A5) makes up a unique address.

Because all MAC addresses must be unique, there is an IEEE (Institute of Electrical and Electronics Engineers) committee responsible for allocating blocks of numbers to network adapter manufacturers.

IEEE 802 standards define three commonly used formats to print a MAC address in hexadecimal digits:

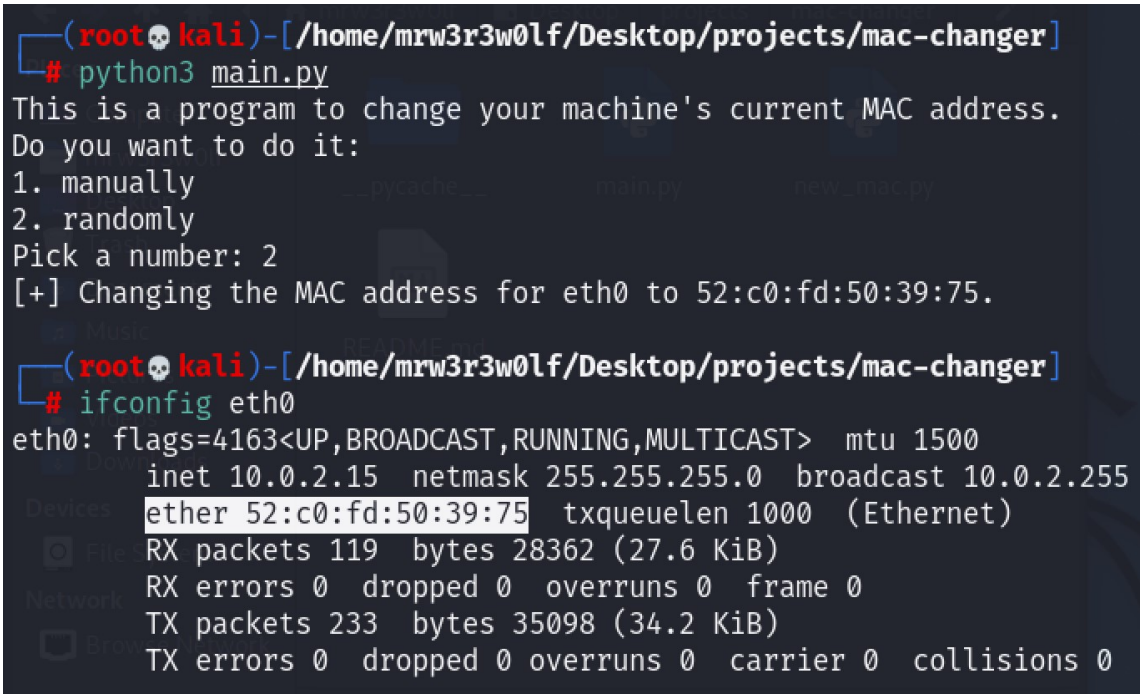
- Six groups of two hexadecimal digits separated by hyphens (-), like 01-23-45-67-89-ab
- Six groups of two hexadecimal digits separated by colons (:), like 01:23:45:67:89:ab
- Three groups of four hexadecimal digits separated by dots (.), like 0123.4567.89ab

real_mac.txt

Store your real MAC address here so that you will not lose access to it.

```
cat /sys/class/net/*/address > real_mac.txt
```

Output


┌──(root💀kali)-[/home/mrw3r3w0lf/Desktop/projects/mac-changer]
└─# python3 main.py
This is a program to change your machine's current MAC address.
Do you want to do it:
1. manually
2. randomly
Pick a number: 2
[+] Changing the MAC address for eth0 to 52:c0:fd:50:39:75.
┌──(root💀kali)-[/home/mrw3r3w0lf/Desktop/projects/mac-changer]
└─# ifconfig eth0
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
ether 52:c0:fd:50:39:75 txqueuelen 1000 (Ethernet)
RX packets 119 bytes 28362 (27.6 KiB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 233 bytes 35098 (34.2 KiB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0