

change MAC address

by command line:

اولا علينا التأكد من الماك الموجود وبعدها علينا اغلاق الشبكة بطريقة التالية

first we check the MAC address then we make the NIC down:

```
(kali㉿kali)-[~]
$ ifconfig
docker0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet 172.17.0.1 netmask 255.255.0.0 broadcast 172.17.255.255
    ether 02:42:cd:ea:5e:13 txqueuelen 0 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::a00:27ff:fe5f:9923 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:5f:99:23 txqueuelen 1000 (Ethernet)
    RX packets 924788 bytes 1368615658 (1.2 GiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 61377 bytes 4059569 (3.8 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 28 bytes 1680 (1.6 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 28 bytes 1680 (1.6 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

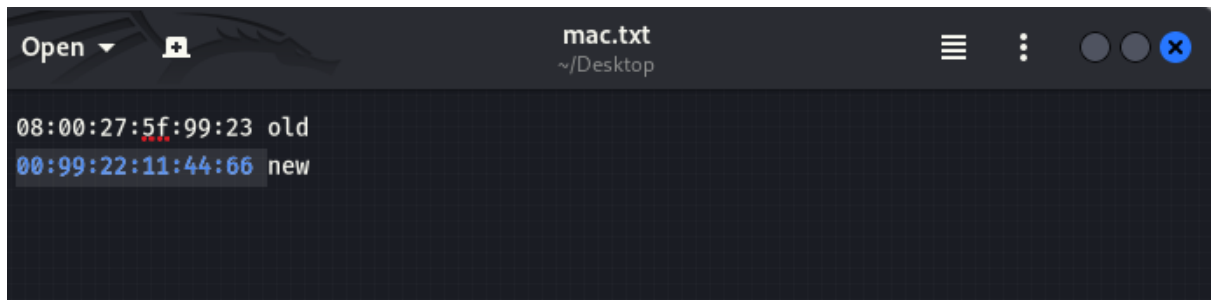
```
(kali㉿kali)-[~]
$ ifconfig eth0 down
SIOCSIFFLAGS: Operation not permitted
```

```
(kali㉿kali)-[~]
$ sudo ifconfig eth0 down
[sudo] password for kali:
```

```
(kali㉿kali)-[~]
$ ifconfig
```

و الآن علينا ان نقوم بكتابه الماك القديم و الجديد في نوت لاتأكد من تغييره فيما بعد

now we create note with new mac address:



الآن سوف نكتب الامر التالي لتغيير الماك, وبعدها نعيد الشبكة

now we change mac address , and return the eth0

```

(kali㉿kali)-[~]
└─$ ifconfig
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 28 bytes 1680 (1.6 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 28 bytes 1680 (1.6 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

(kali㉿kali)-[~]
└─$ sudo ifconfig eth0 hw ether ether 08:00:27:5f:99:23
ether: invalid ether address.
08:00:27:5f:99:23: Unknown host
ifconfig: '--help' gives usage information.

(kali㉿kali)-[~]
└─$ sudo ifconfig eth0 hw ether ether ether 00:99:22:11:44:66
ether: invalid ether address.
ether: Unknown host
ifconfig: '--help' gives usage information.

(kali㉿kali)-[~]
└─$ sudo ifconfig eth0 hw ether ether 00:99:22:11:44:66
ether: invalid ether address.
00:99:22:11:44:66: Unknown host
ifconfig: '--help' gives usage information.

(kali㉿kali)-[~]
└─$ sudo ifconfig eth0 hw ether 00:99:22:11:44:66

(kali㉿kali)-[~]
└─$ sudo ifconfig eth0 up

(kali㉿kali)-[~]
└─$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet6 fe80::299:22ff:fe11:4466 prefixlen 64 scopeid 0x20<link>
    ether 00:99:22:11:44:66 txqueuelen 1000 (Ethernet)
    RX packets 924788 bytes 1368615658 (1.2 GiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 61385 bytes 4060737 (3.8 MiB)

```

now we will change it by python:

<https://github.com/NajmaSulaiman/Security/blob/main/MacChanger.py>

first we will need to write the next command :

```

import subprocess
import optparse
import re

# This is a reader that will take network interface and mac address
def get_argument():
    parser = optparse.OptionParser()
    parser.add_option("-i", "--interface", dest="network_interface", help="This place is for network interface")
    parser.add_option("-m", "--mac", dest="new_mac", help="This place is for mac address")
    options, argument = parser.parse_args()

    # this is for the error
    if not options.network_interface:
        parser.error("[-] Specify an Network Interface, type -h for help")
    if not options.new_mac:
        parser.error("[-] Specify new MAC address please, type -h for help")

    return options

# these are a system command that will change the mac address for network interface
def mac_changer(network_interface, new_mac):
    subprocess.call("ifconfig " + network_interface + " down ", shell=True)
    subprocess.call("ifconfig " + network_interface + " hw ether " + new_mac, shell=True)
    subprocess.call("ifconfig " + network_interface + " up ", shell=True)
    print("[+] Changing MAC address for " + network_interface + " to " + new_mac)

# filtering mac address
def get_mac(network_interface):

```

```

    ifconfig_result=(subprocess.check_output("ifconfig "+network_interface, shell=True).decode("UTF=8"))
    mac_address= re.search("\w\w:\w\w:\w\w:\w\w:\w\w:\w\w", ifconfig_result)
    return mac_address[0]

options = get_argument()
mac_changer(options.network_interface, options.new_mac)
mac_address = get_mac(options.network_interface)

if mac_address == options.new_mac:
    print("[+] MAC address change successfully "+ options.new_mac)
else:
    print("something went wrong")

```

then we open the app:

```

(kali㉿kali)-[~/PycharmProjects/pythonProject]
└─$ sudo python3 MacChanger.py -i eth0 -m 00:33:22:11:55:44
[+] Changing MAC address for eth0 to 00:33:22:11:55:44
[+] MAC address change successfully 00:33:22:11:55:44

(kali㉿kali)-[~/PycharmProjects/pythonProject]
└─$ sudo python3 MacChanger.py
Usage: MacChanger.py [options]

MacChanger.py: error: [-] Specify an Network Interface, type -h for help

(kali㉿kali)-[~/PycharmProjects/pythonProject]
└─$ sudo python3 MacChanger.py -i eth0
Usage: MacChanger.py [options]

MacChanger.py: error: [-] Specify new MAC address please, type -h for help

(kali㉿kali)-[~/PycharmProjects/pythonProject]
└─$ sudo python3 MacChanger.py -h
Usage: MacChanger.py [options]

Options:
  -h, --help            show this help message and exit
  -i NETWORK_INTERFACE, --interface=NETWORK_INTERFACE
                        This place is for network interface
  -m NEW_MAC, --mac=NEW_MAC
                        This place is for mac address

```