

# INDIRIZZI IP

Nell'esercizio di oggi dovremo svolgere i seguenti esercizi:

- Modificare l'indirizzo IP manualmente su virtualbox sia su Kali Linux, sia su Windows 7.
- Tramite client di Windows 7, richiedere a client Kali Linux la risposta del web browser di epicode.internal.
- Tramite Wireshark intercettare la comunicazione, evidenziando i MAC Address di sorgente e destinazione.
- Ripetere l'esercizio sostituendo L'HTTPS con un server HTTP e spiegare le quali differenze abbiamo riscontrato.

1. Per prima cosa andremo a configurare manualmente gli indirizzi IP per Kali Linux, quindi andremo ad aprire Kali e a cliccare sul centro comandi, per poi digitare la seguente stringa: “`sudo ifconfig eth0 192.168.32.100 netmask 255.255.255.0`”

The screenshot shows a terminal window titled "kali@Kali: ~". The terminal displays the output of the "ifconfig" command, showing network interfaces eth0 and lo. The eth0 interface has an IP of 192.168.64.2 and a netmask of 255.255.255.0. The lo interface has an IP of 127.0.0.1 and a netmask of 255.0.0.0. A red box highlights the line "sudo ifconfig eth0 192.168.32.100 netmask 255.255.255.0". Below this, a password prompt "[sudo] password:" is visible, followed by a redacted password entry. The terminal prompt "(kali㉿kali)-[~]" is at the bottom.

```
File Azioni Modifica Visualizza Aiuto
kali@Kali: ~
zsh: corrupt history file /home/kali/.zsh_history
└─(kali㉿kali)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.64.2 brd 192.168.64.255 netmask 255.255.255.0 broadcast 192.168.64.255
        inet6 fe80::b0aa:c1ff:fe34:7b47 brd fe80::ff:fe34:7b47 prefixlen 64 scopeid 0x20<link>
        inet6 fdf1:dacc:c32b:df84:b0aa:c1ff:fe34:7b47 brd fe80::fdd1:da:ac:c32b:df84 brd fe80::fdd1:da:ac:c32b:df84 prefixlen 64 scopeid 0x0<global>
        ether b2:aa:c1:34:7b:47 txqueuelen 1000 (Ethernet)
          RX packets 6637 bytes 9608900 (9.1 MiB)
          RX errors 0 dropped 0 overruns 0 frame 0
          TX packets 1320 bytes 80878 (78.9 KiB)
          TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
        inet 127.0.0.1 brd 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 brd ::1 prefixlen 128 scopeid 0x10<host>
        loop txqueuelen 1000 (Local Loopback)
          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
└─(kali㉿kali)-[~]
$ sudo ifconfig eth0 192.168.32.100 netmask 255.255.255.0
[sudo] password: [REDACTED]
└─(kali㉿kali)-[~]
$
```

```
kali@Kali: ~
File Azioni Modifica Visualizza Aiuto
zsh: corrupt history file /home/kali/.zsh_history
[~]-(kali㉿Kali)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
inet 192.168.32.100 netmask 255.255.255.0 broadcast 192.168.32.255
        mac 08:00:02:00:00:00 brd ff:ff:ff:ff:ff:ff
        inet6 fe80::3ca6:ffff:fe95:2e64%eth0 brd fe80::ff:ffff:fe95:2e64
                prefixlen 64 scopeid 0x20<link>
                inet6 fd11:dacc:c32b:df84:b0aa:c1ff:fe34:7b47 brd fe80::ff:ffff:fd11:dacc:c32b:df84
                        prefixlen 64 scopeid 0x0<global>
                ether b2:aa:c1:34:7b:47 txqueuelen 1000 (Ethernet)
                RX packets 6638 bytes 9609042 (9.1 MiB)
                RX errors 0 dropped 0 overruns 0 frame 0
                TX packets 1322 bytes 81098 (79.1 KiB)
                TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

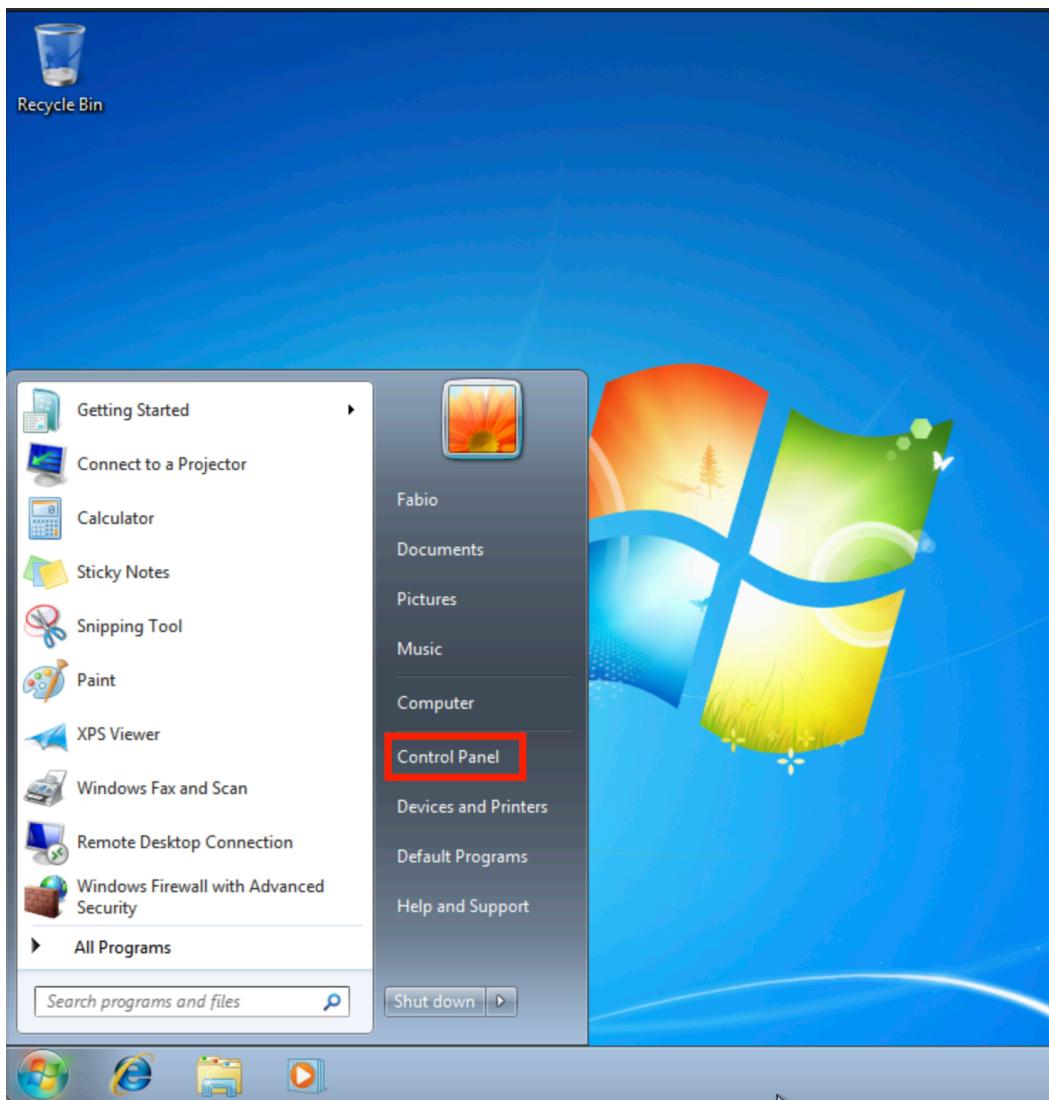
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
        inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0x10<host>
        loop txqueuelen 1000 (Local Loopback)
        RX packets 0 bytes 0 (0.0 B)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 0 bytes 0 (0.0 B)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

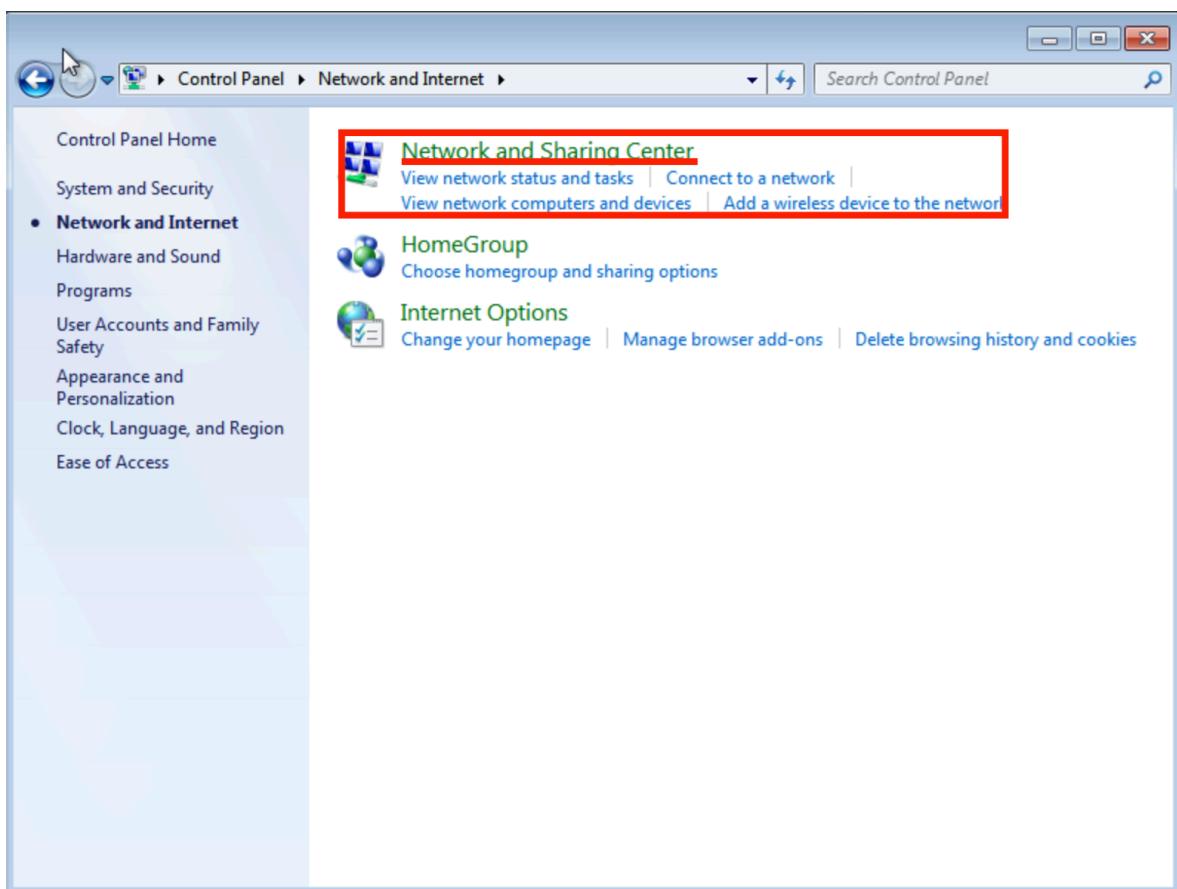
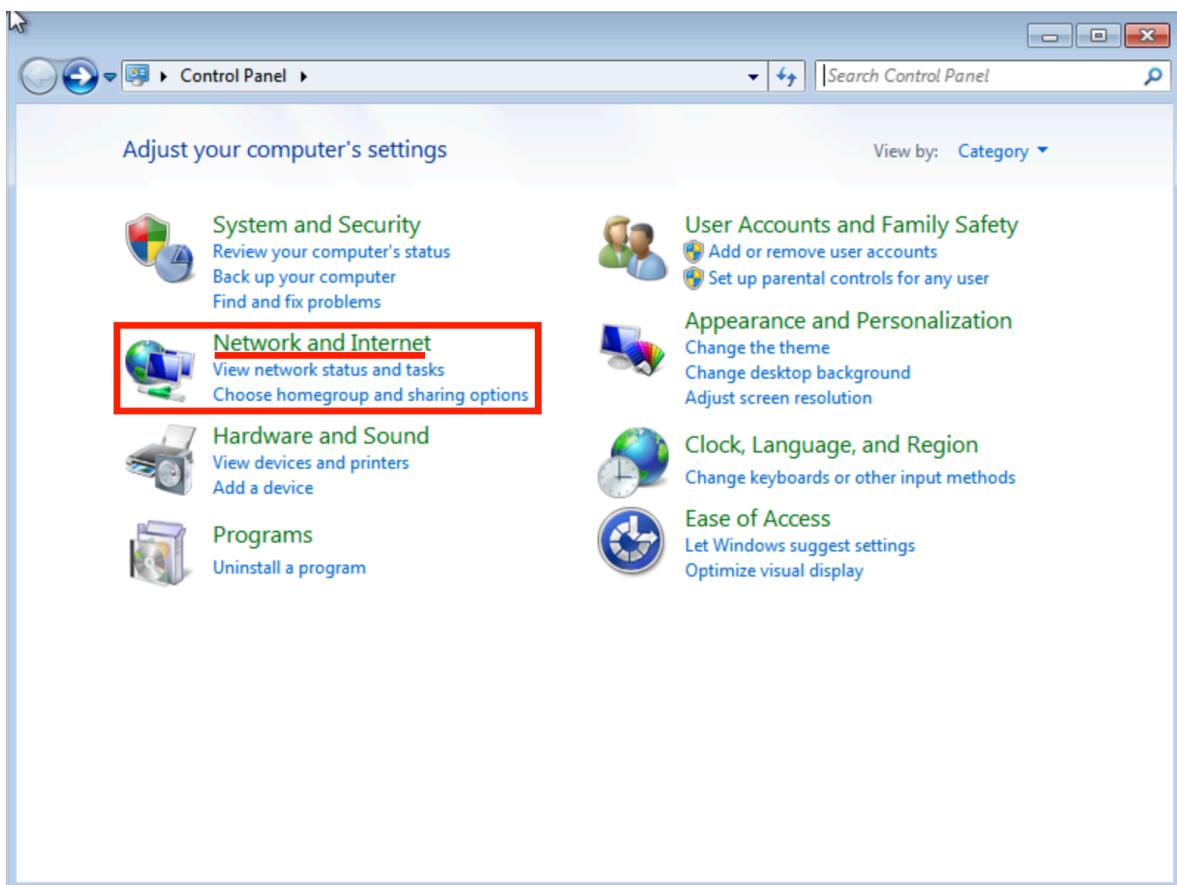
[~]-(kali㉿Kali)-[~]
$
```

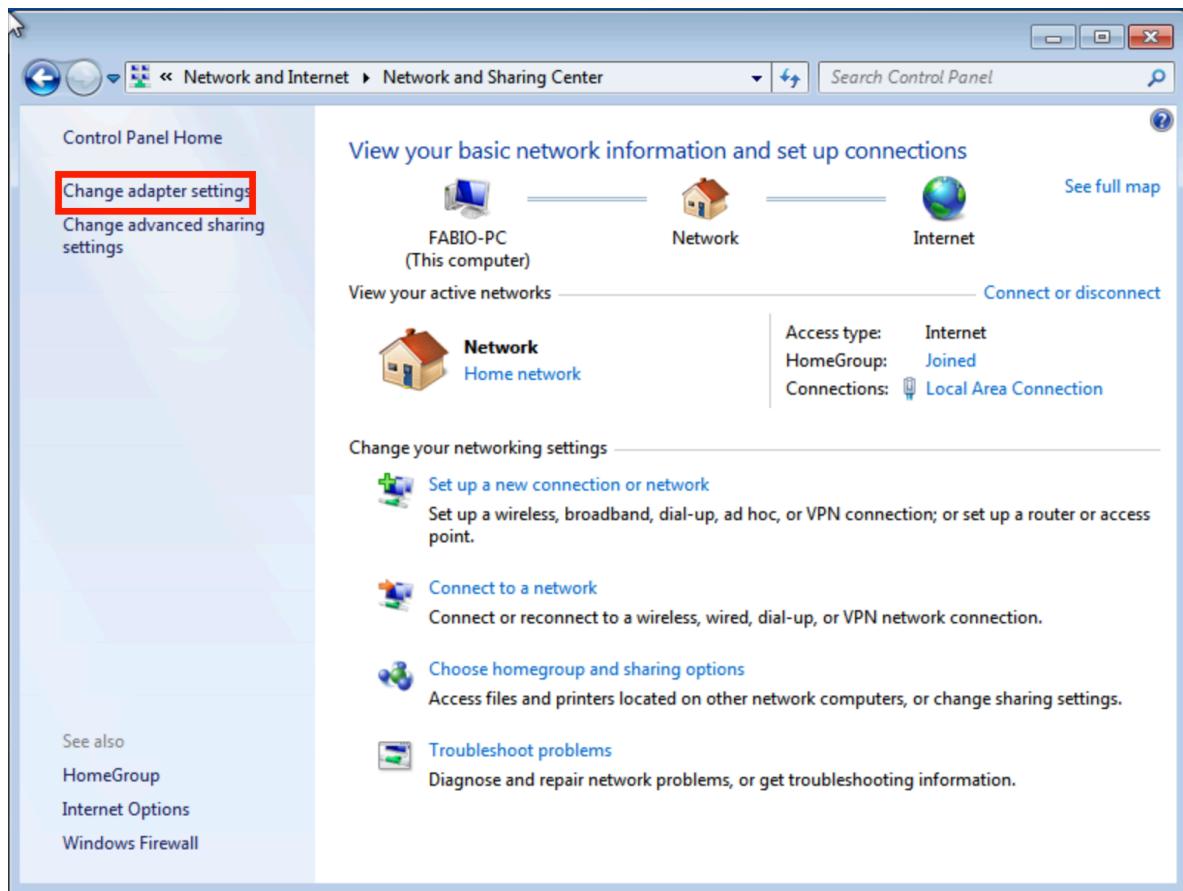
```
kali@Kali: ~
File Azioni Modifica Visualizza Aiuto
zsh: corrupt history file /home/kali/.zsh_history
[~]-(kali㉿Kali)-[~]
$ cat /etc/resolv.conf
# Generated by NetworkManager
nameserver 192.168.64.1
nameserver fe80::3ca6:ffff:fe95:2e64%eth0

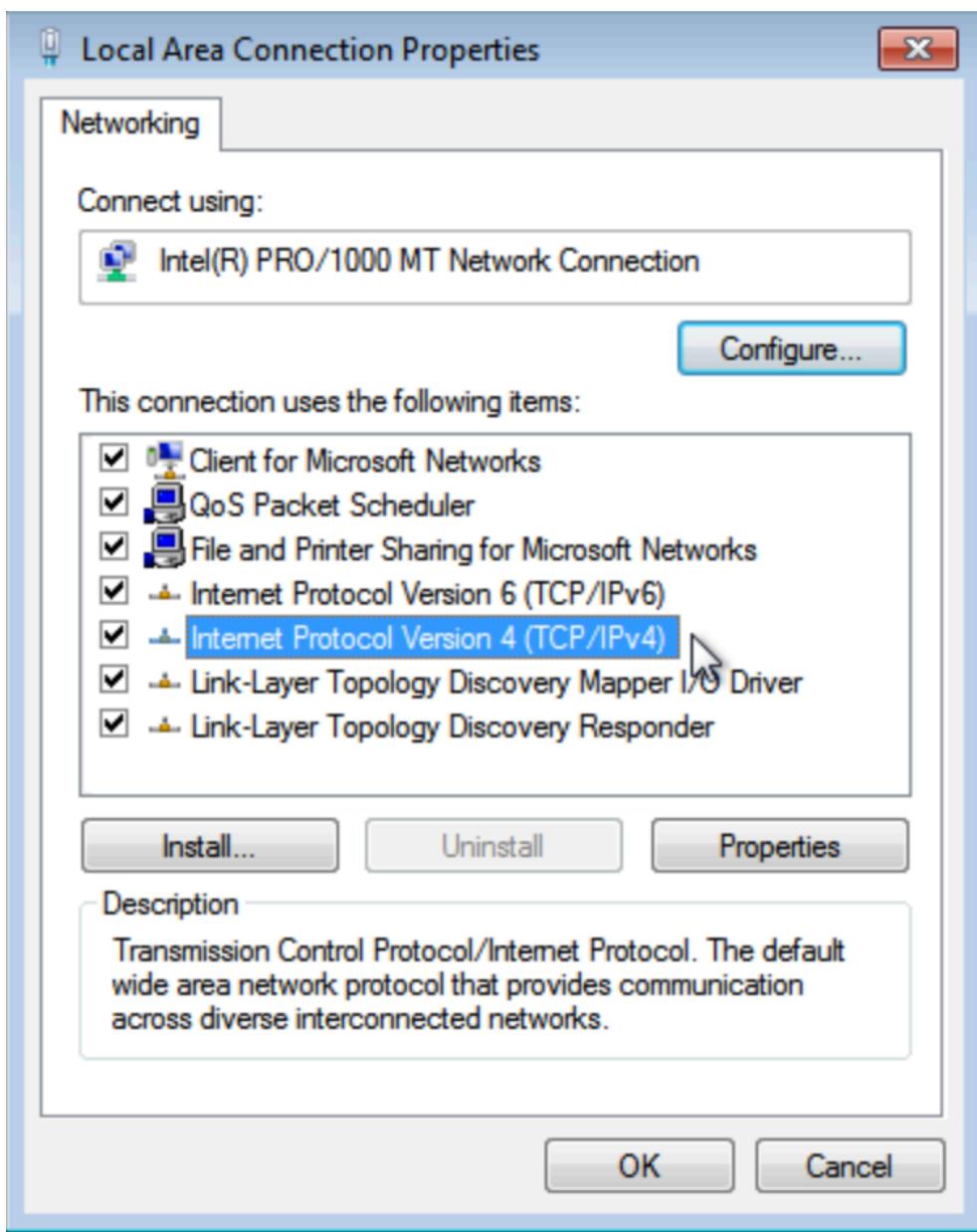
[~]-(kali㉿Kali)-[~]
$
```

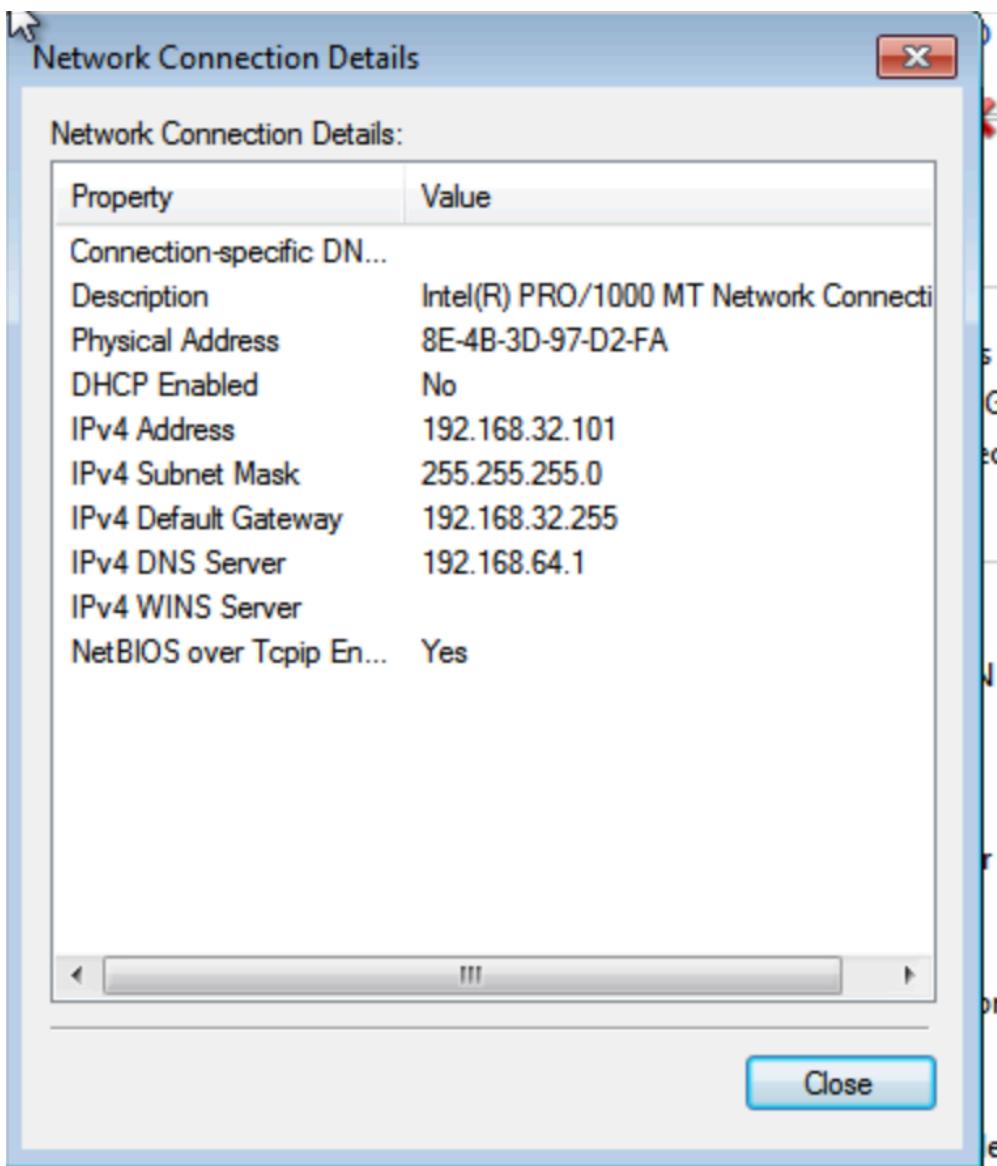
Ho usato comando “cat /etc/resolv.conf” pero ottenere l’indirizzo IP del DNS per poi inserirlo su windows 7. Se tutto è stato fatto correttamente avremo cambiato con successo il nostro indirizzo IP.  
Ora procediamo al cambio dell’indirizzo IP per Windows 7.











Così facendo abbiamo cambiato gli indirizzi IP e per assicurarci che ci sia un effettivo collegamento è consigliato fare Ping per entrambi i dispositivi.

```
kali@Kali: ~
File Azioni Modifica Visualizza Aiuto
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
      loop txqueuelen 1000 (Local Loopback)
        RX packets 2 bytes 100 (100.0 B)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 2 bytes 100 (100.0 B)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

└─(kali㉿Kali)-[~]
$ ping 192.168.32.101
PING 192.168.32.101 (192.168.32.101) 56(84) bytes of data.
64 bytes from 192.168.32.101: icmp_seq=1 ttl=128 time=25.4 ms
64 bytes from 192.168.32.101: icmp_seq=2 ttl=128 time=3.03 ms
64 bytes from 192.168.32.101: icmp_seq=3 ttl=128 time=2.24 ms
64 bytes from 192.168.32.101: icmp_seq=4 ttl=128 time=15.2 ms
64 bytes from 192.168.32.101: icmp_seq=5 ttl=128 time=3.39 ms
64 bytes from 192.168.32.101: icmp_seq=6 ttl=128 time=2.58 ms
64 bytes from 192.168.32.101: icmp_seq=7 ttl=128 time=2.81 ms
64 bytes from 192.168.32.101: icmp_seq=8 ttl=128 time=2.40 ms
64 bytes from 192.168.32.101: icmp_seq=9 ttl=128 time=2.64 ms
64 bytes from 192.168.32.101: icmp_seq=10 ttl=128 time=2.75 ms
64 bytes from 192.168.32.101: icmp_seq=11 ttl=128 time=2.73 ms
64 bytes from 192.168.32.101: icmp_seq=12 ttl=128 time=2.36 ms
64 bytes from 192.168.32.101: icmp_seq=13 ttl=128 time=3.84 ms
64 bytes from 192.168.32.101: icmp_seq=14 ttl=128 time=3.38 ms
64 bytes from 192.168.32.101: icmp_seq=15 ttl=128 time=2.63 ms
64 bytes from 192.168.32.101: icmp_seq=16 ttl=128 time=3.40 ms
64 bytes from 192.168.32.101: icmp_seq=17 ttl=128 time=3.71 ms
64 bytes from 192.168.32.101: icmp_seq=18 ttl=128 time=2.74 ms
64 bytes from 192.168.32.101: icmp_seq=19 ttl=128 time=2.15 ms
64 bytes from 192.168.32.101: icmp_seq=20 ttl=128 time=2.33 ms
64 bytes from 192.168.32.101: icmp_seq=21 ttl=128 time=3.66 ms
^C
— 192.168.32.101 ping statistics —
21 packets transmitted, 21 received, 0% packet loss, time 20083ms
```

Successivamente ho ottenuto accesso alla rete locale tramite DNS di Kali è il risultato è stato che ho ottenuto accesso a internet seppur limitato, cliccando su episode.internal.

