

MAC Address:

- o MAC stands for Media Access Control (MAC).
- o Every LAN card has a unique 48 Bits Address called MAC Address.
- o Media Access Control address represented in Hexadecimal Format.
- o Media Access Control address used for Layer 2 Datalink Layer communication.
- o Media Access Control Address used for switching.
- o MAC Addresses is 12-digit number used to identifiers the devices unequally.
- o It has two Parts, OUI (Organisation Unique Identifier) and Serial Number.
- o MAC Address is total 48 Bits, 24 Bits OUI and 24 Bits is company Serial Number.
- o MAC Address also called Hardware, Physical, Fixed, BIA (Burn In Address),48 Bit.
- o NIC, Ethernet, Data link Layer, Layer 2, Manufacturer & Adapter Card Addresses.

Start > Run > CMD > getmac

```
C:\Users\Ahmad>getmac

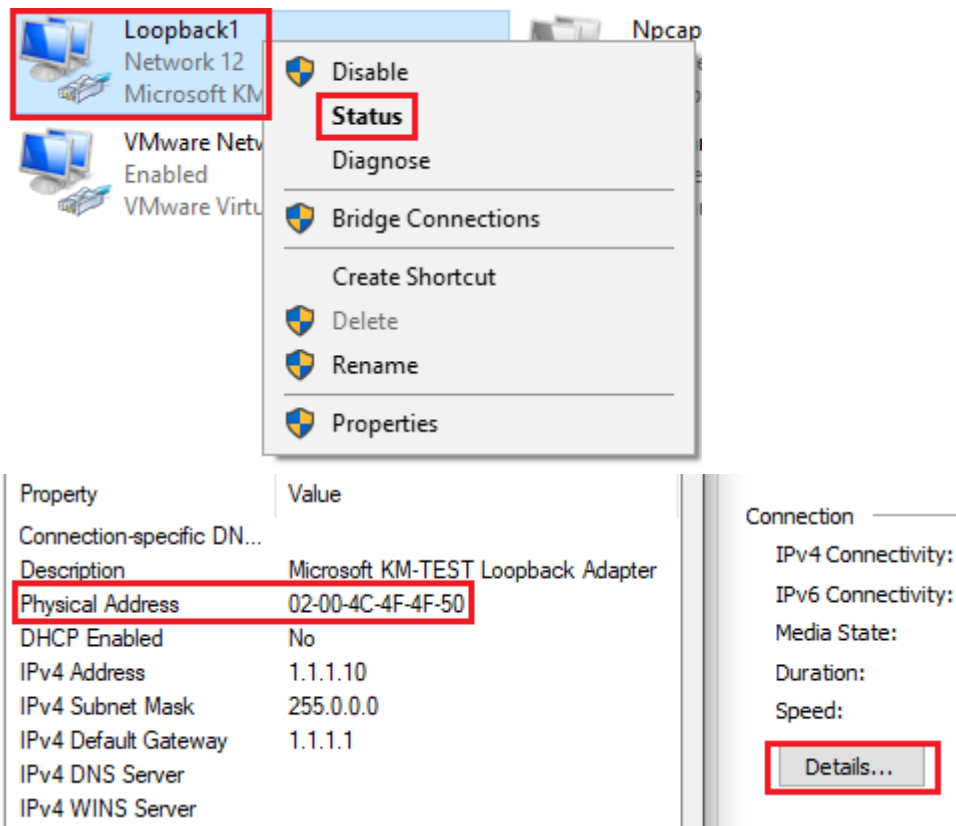
Physical Address    Transport Name
-----
0A-00-27-00-00-04   \Device\Tcpip_{16570E21-0A7A-4A37-A666-668F2A3966DF}
N/A                Hardware not present
00-50-56-C0-00-01   \Device\Tcpip_{47C7B5B5-82B7-4B74-BDE1-E8956D0E6DC9}
00-50-56-C0-00-03   \Device\Tcpip_{450D2812-CA47-418B-B141-05F38D028A22}
00-50-56-C0-00-04   \Device\Tcpip_{9413E88C-8048-49E9-9730-6D83AF839E5E}
00-50-56-C0-00-05   \Device\Tcpip_{BA85F90F-5473-4E1E-85D0-114823C4499E}
00-50-56-C0-00-08   \Device\Tcpip_{B7346FA0-70DB-4236-8CD6-2482A50242FA}
50-7B-9D-9E-05-5D   \Device\Tcpip_{E11764ED-C2CD-43D6-8B6E-A500B5359DD4}
02-AB-3A-A7-B2-BF   Media disconnected
E0-94-67-EE-4C-3C   Media disconnected
02-00-4C-4F-4F-50   \Device\Tcpip_{EFD1EAB1-CCFB-4C0E-AC06-3A861D3F6B1E}
Disabled            Disconnected
```

Start > Run > CMD > ipconfig /all

```
Connection-specific DNS Suffix . : 
Description . . . . . : Microsoft KM-TEST Loopback Adapter
Physical Address . . . . . : 02-00-4C-4F-4F-50
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : Yes
IPv6 Address. . . . . : 1000::2(Preferred)
Link-local IPv6 Address . . . . . : fe80::a8dd:bd2d:2ac0:e7e5%30(Preferred)
IPv4 Address. . . . . : 1.1.1.10(Preferred)
Subnet Mask . . . . . : 255.0.0.0
Default Gateway . . . . . : 1000::1
```

Goto Control Panel > All Control Panel Items > Network Connections

Right click on the given interface click on status



In Router in enable mode type “show interface f0/0” to check MAC, address of given interface.

```
R1#show interface f0/0 | sec bia
Hardware is i82543 (Livengood), address is ca01.adc0.0008 (bia ca01.adc0.0008)
```

In Switch in enable mode type “show interface f0/0” to check MAC, address of given interface.

```
SWITCH1#show interfaces e0/0 | sec bia
Hardware is Ethernet, address is aabb.cc00.0100 (bia aabb.cc00.0100)
```

In Linux OS just type “ifconfig” to check Hardware Address.

```
/ # ifconfig
eth0      Link encap:Ethernet HWaddr 92:39:8D:BB:00:50
          inet6 addr: fe80::9039:8dff:febb:50/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
```