HOW TO CHANGE THE MAC ADDRESS OF AN ETHERNET INTERFACE

It is very easy to change the MAC address of an Ethernet interface and make this change permanent. I will briefly explain how to do this using standard commands and one particularly useful tool MAC Changer.

Change the MAC address of an Ethernet interface temporarily

Check MAC addresses:

```
$ ifconfig -a | awk '/HWaddr/ {print "Interface: " $1 "\t MAC: " $NF}'

Interface: eth0        MAC: 08:00:27:2c:a4:69

Interface: eth1        MAC: 08:00:27:9a:21:24
```

Shut down desired Ethernet interface (*eth0* in this example):

```
$ sudo ifconfig eth0 down
```

Specify new MAC address:

```
$ sudo ifconfig eth0 hw ether 08:00:00:00:00:01
```

Activate modified Ethernet interface:

```
# ifconfig eth0 up
```

Verify changed MAC address:

```
$ ifconfig -a | awk '/HWaddr/ {print "Interface: " $1 "\t MAC: " $NF}'

Interface: eth0        MAC: 08:00:00:00:00:01

Interface: eth1        MAC: 08:00:27:9a:21:24
```

This change is not permanent as the MAC address on the interface *eth0* will revert to the default on next system reboot.

Change the MAC address of an Ethernet interface permanently

To permanently change MAC address of an Ethernet interface you need to edit*/etc/network/interfaces* configuration file and use *hwaddress* directive:

```
# This file describes the network interfaces available on your system

# and how to activate them. For more information, see interfaces(5).


# The loopback network interface

auto lo

iface lo inet loopback


# Network interfaces

allow-hotplug eth0
```

```
iface eth0 inet dhcp

  hwaddress ether 08:00:00:00:00:01



allow-hotplug eth1

iface eth1 inet dhcp
```

Reboot or reconfigure network interfaces by hand:

```
$ sudo service networking restart
```

MAC Changer

MAC Changer is a utility for viewing/manipulating the MAC address of network interfaces.

Install it using command:

```
$ sudo apt-get install macchanger
```

Set random vendor MAC address of the same kind:

```
$ sudo macchanger -a eth0
Permanent MAC: 84:8f:69:b0:fa:0a (unknown)
Current   MAC: 84:8f:69:b0:fa:0a (unknown)
New       MAC: 00:0e:37:5b:d7:31 (Harms & Wende Gmbh & Co.kg)
```

Set random vendor MAC address of any kind:

```
$ sudo macchanger -A eth0
```

Permanent MAC: 84:8f:69:b0:fa:0a (unknown)

Current   MAC: 00:0e:37:5b:d7:31 (Harms & Wende Gmbh & Co.kg)

New   MAC: 00:24:18:22:02:4b (Nextwave Semiconductor)

Set specific MAC address:

```
$ sudo macchanger -m 02:02:02:00:00:01 eth0
```

Permanent MAC: 84:8f:69:b0:fa:0a (unknown)

Current   MAC: 00:24:18:22:02:4b (Nextwave Semiconductor)

New   MAC: 02:02:02:00:00:01 (unknown)

Set fully random MAC:

```
$ sudo macchanger -r eth0
```

Permanent MAC: 84:8f:69:b0:fa:0a (unknown)

Current   MAC: 02:02:02:00:00:01 (unknown)

New   MAC: f6:61:c0:6a:14:66 (unknown)

Set another MAC address of the same vendor:

```
$ sudo macchanger -e eth0
```

Permanent MAC: 84:8f:69:b0:fa:0a (unknown)

Current   MAC: f6:61:c0:6a:14:66 (unknown)

New   MAC: f6:61:c0:53:a0:5f (unknown

Revert to the default MAC address:

```
$ sudo macchanger -p eth0
```

Permanent MAC: 84:8f:69:b0:fa:0a (unknown)

Current   MAC: f6:61:c0:53:a0:5f (unknown)

New   MAC: 84:8f:69:b0:fa:0a (unknown)

Display a vendor MAC address list to choose from

```
$ macchanger -l

Misc MACs:

Num    MAC       Vendor

---    ---       ------

0000 - 00:00:00 - Xerox Corporation

0001 - 00:00:01 - Xerox Corporation

0002 - 00:00:02 - Xerox Corporation

0003 - 00:00:03 - Xerox Corporation

0004 - 00:00:04 - Xerox Corporation

0005 - 00:00:05 - Xerox Corporation

0006 - 00:00:06 - Xerox Corporation

0007 - 00:00:07 - Xerox Corporation

0008 - 00:00:08 - Xerox Corporation

0009 - 00:00:09 - Xerox Corporation

0010 - 00:00:0a - Omron Tateisi Electronics Co.

0011 - 00:00:0b - Matrix Corporation

0012 - 00:00:0c - Cisco Systems, Inc.
```

0013 - 00:00:0d - Fibronics Ltd.

0014 - 00:00:0e - Fujitsu Limited

0015 - 00:00:0f - Next, Inc.

0016 - 00:00:10 - Sytek Inc.

[...]

Common problems

```
$ ifconfig eth0 hw ether 02:00:01:00:00:02

SIOCSIFHWADDR: Operation not permitted
```

You need root permissions to alter network interface.
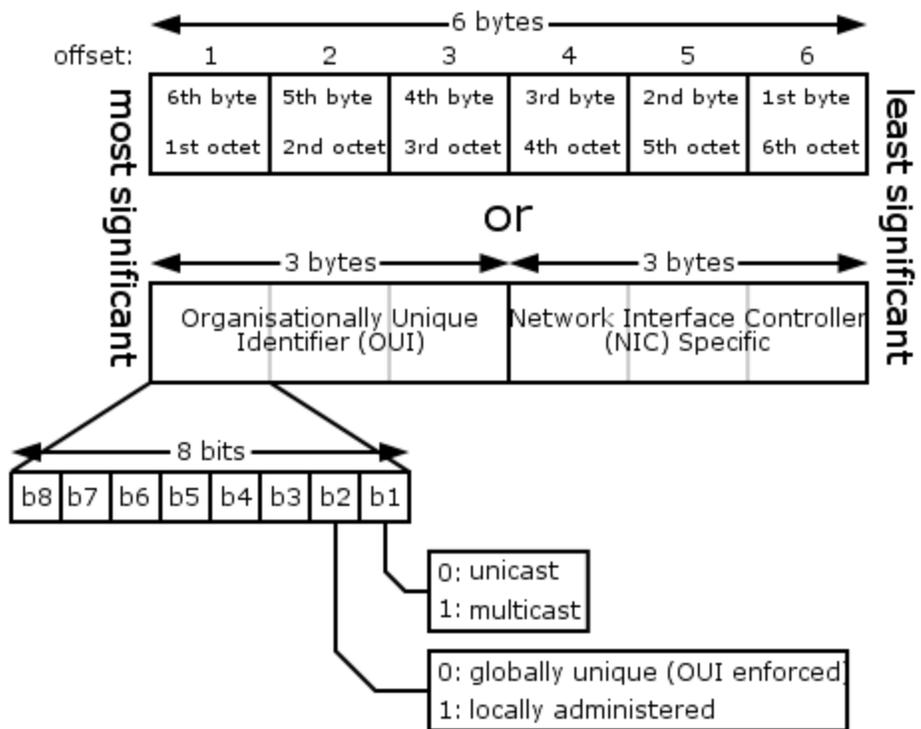
```
$ sudo ifconfig eth0 hw ether 02:00:00:10:10:10

SIOCSIFHWADDR: Device or resource busy - you may need to down the interface
```

Shut down the network interface first.

```
$ sudo ifconfig eth0 hw ether 01:00:00:10:10:10

SIOCSIFHWADDR: Cannot assign requested address
```

This is not an unicast address as the first octet needs to be even. Look at the image below to understand it better. This image is from Wikipedia - MAC address page and licensed under the Creative Commons Attribution-Share Alike 2.5 Generic, 2.0 Generic and 1.0 Generic license.