How to change order of network cards eth0 and eth0 (swap lan cards) on Debian GNU / Linux

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I have a Debian server with *2 network adapter cards* - (**eth0** and **eth1**). The first lan card eth0 is Mainboard embedded (integrated) one.

The hardware of the *Lenovo ThinkCentre* host was purchased with one LAN Card but a second one was added in order to make the machine capable of doing NAT routing with iptables.

The machine is to be configured as a router in 1st lan card eth0, an internet UTP cable should influx and the 2nd lan card is to be connected to a *Network Switch* and will be used to NAT network traffic from the internal network of number of hosts with assigned local IP addresses like (192.168.0.1 - 255) etc.

Everyone knows that integrated Network cards, are usually inferior to the normal non-integrated ones and besides that if a high voltage (during Weather Storm) enters through UTP cable attached to the integrated LAN Card it is quite likely the whole Mainboard to burn out ...

With saying this back to my case I had to make the Internet to connect on eth0 on a Debian Linux host which was supposed to run as a Network router. As *eth0* was the one where I had to configure the Internet real IP address to be assigned, I preferred eth0 to be attached to the non-integrated *Ethernet Card* which was automatically recognized and assigned to be *eth1* by kernel.

Therefore I needed to swap interfaces eth0 and eth1, here is how this is done on Debian GNU / Linux Squeeze (6.0.5):

1. Edit /etc/udev/rules.d/70-persistent-net.rules

vim /etc/udev/rules.d/70-persistent-net.rules

The file content should look something similar to:

```
# This file was automatically generated by the
/lib/udev/write_net_rules
# program, run by the persistent-net-generator.rules rules file.
#
# You can modify it, as long as you keep each rule on a single
# line, and change only the value of the NAME= key.
# PCI device 0x10ec:0x8168 (r8169)
SUBSYSTEM=="net", ACTION=="add", DRIVERS=="?*",
ATTR{address}=="90:f6:C2:3d:76:f5", ATTR{dev_id}=="0x0",
ATTR{type}=="1", KERNEL=="eth*", NAME="eth0"
# PCI device 0x10ec:0x8168 (r8169)
SUBSYSTEM=="net", ACTION=="add", DRIVERS=="?*",

ATTR{address}=="8d:89:a5:c2:e8:f8", ATTR{dev_id}=="0x0",

ATTR{type}=="1", KERNEL=="eth*", NAME="eth1"
```

Swap *eth0* and *eth1* definitions so **eth0 becomes eth1 and vice versa**, e.g.:

```
SUBSYSTEM=="net", ACTION=="add", DRIVERS=="?*",

ATTR{address}=="8d:89:a5:c2:e8:f8", ATTR{dev_id}=="0x0",

ATTR{type}=="1", KERNEL=="eth*", NAME="eth0"
SUBSYSTEM=="net", ACTION=="add", DRIVERS=="?*",
ATTR{address}=="90:f6:C2:3d:76:f5", ATTR{dev_id}=="0x0",
ATTR{type}=="1", KERNEL=="eth*", NAME="eth1"

ATTR{type}=="1", KERNEL=="eth*", NAME="eth0"
```

To make *udevd*, reassign eth0 / eth1 cards orders restart udev daemon:

```
# /etc/init.d/udev restart
...
```

or restart the system, i.e.

```
# restart
```

That should swap the Lan card order as recognized by Linux. Cheers ;)