Subject: 2.6.18-028stab053 doesn't find my NIC.
Posted by januszzz on Tue, 03 Jun 2008 12:51:57 GMT
View Forum Message <> Reply to Message

Hi,
I compiled kernel from stable sources (Gentoo ebuild: openvz-sources-2.6.18.028.053-r2). The problem is after reboot I don't have my NIC, which is:

02:00.0 Ethernet controller: Broadcom Corporation NetXtreme BCM5722 Gigabit Ethernet PCI Express
Subsystem: Dell Unknown device 0225
Flags: bus master, fast devsel, latency 0, IRQ 10
Memory at d0200000 (64-bit, non-prefetchable) [size=64K]
Capabilities: [48] Power Management version 3
Capabilities: [50] Vital Product Data <?>
Capabilities: [58] Vendor Specific Information <?>
Capabilities: [e8] Message Signalled Interrupts: Mask- 64bit+ Queue=0/0 Enable-
Capabilities: [d0] Express Endpoint, MSI 00
Capabilities: [100] Advanced Error Reporting <?>
Capabilities: [13c] Virtual Channel <?>
Capabilities: [160] Device Serial Number 90-4a-2a-fe-ff-09-1d-00
Capabilities: [16c] Power Budgeting <?>

I'm not exactly sure which module should I use; I tried tg3, bnx2, and even e1000 - nothing works. Ifconfig -a displays only realtek (true, I had it put inside, its remote machine), sit0, lo and venet0.

The machine is:
Manufacturer: Dell Inc.
Product Name: PowerEdge T105

I wasn't sure on which module the NIC was running (I remotely installed Gentoo with 2.6.24) but I was running there it fine.

I have to stay on this kernel now, as the server is completely unattended now.

Regards,

Janusz.

Subject: Re: 2.6.18-028stab053 doesn't find my NIC.
Posted by adobriyan on Tue, 03 Jun 2008 14:34:10 GMT
View Forum Message <> Reply to Message

That's tg3 (CONFIG_TIGON3).

Post lspci -nn output.

Subject: Re: 2.6.18-028stab053 doesn't find my NIC.
Posted by januszzz on Tue, 03 Jun 2008 19:43:53 GMT
View Forum Message <> Reply to Message

Ok, I'm sending it all:

00:00.0 Memory controller [0580]: nVidia Corporation CK804 Memory Controller [10de:005e] (rev a4)
00:01.0 ISA bridge [0601]: nVidia Corporation CK804 ISA Bridge [10de:0051] (rev f1)
00:01.1 SMBus [0c05]: nVidia Corporation CK804 SMBus [10de:0052] (rev a2)
00:02.0 USB Controller [0c03]: nVidia Corporation CK804 USB Controller [10de:005a] (rev a2)
00:02.1 USB Controller [0c03]: nVidia Corporation CK804 USB Controller [10de:005b] (rev a4)
00:07.0 IDE interface [0101]: nVidia Corporation CK804 Serial ATA Controller [10de:0054] (rev f3)
00:08.0 IDE interface [0101]: nVidia Corporation CK804 Serial ATA Controller [10de:0055] (rev f3)
00:09.0 PCI bridge [0604]: nVidia Corporation CK804 PCI Bridge [10de:005c] (rev f2)
00:0b.0 PCI bridge [0604]: nVidia Corporation CK804 PCIE Bridge [10de:005d] (rev f3)
00:0c.0 PCI bridge [0604]: nVidia Corporation CK804 PCIE Bridge [10de:005d] (rev f3)
00:0d.0 PCI bridge [0604]: nVidia Corporation CK804 PCIE Bridge [10de:005d] (rev f3)
00:0e.0 PCI bridge [0604]: nVidia Corporation CK804 PCIE Bridge [10de:005d] (rev a3)
00:18.0 Host bridge [0600]: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] HyperTransport Technology Configuration [1022:1100]
00:18.1 Host bridge [0600]: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] Address Map [1022:1101]
00:18.2 Host bridge [0600]: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] DRAM Controller [1022:1102]
00:18.3 Host bridge [0600]: Advanced Micro Devices [AMD] K8 [Athlon64/Opteron] Miscellaneous Control [1022:1103]
01:07.0 Ethernet controller [0200]: Realtek Semiconductor Co., Ltd. RTL-8139/8139C/8139C+ [10ec:8139] (rev 10)
01:08.0 VGA compatible controller [0300]: ATI Technologies Inc ES1000 [1002:515e] (rev 02)
02:00.0 Ethernet controller [0200]: Broadcom Corporation NetXtreme BCM5722 Gigabit Ethernet PCI Express [14e4:165a]
05:00.0 SCSI storage controller [0100]: LSI Logic / Symbios Logic SAS1068E PCI-Express Fusion-MPT SAS [1000:0058] (rev 08)

```
optek ~ # lsmod | grep tg3
tg3                   104068  0
optek ~ # ifconfig -a
eth0      Link encap:Ethernet  HWaddr 00:0A:CD:14:FF:24
          inet addr:192.168.0.68  Bcast:192.168.0.255  Mask:255.255.255.0
          inet6 addr: fe80::20a:cdff:fe14:ff24/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1016054 errors:0 dropped:0 overruns:0 frame:0
          TX packets:89940 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:144908123 (138.1 Mb)  TX bytes:14403934 (13.7 Mb)
          Interrupt:19 Base address:0x2000

lo        Link encap:Local Loopback
```

inet addr:127.0.0.1 Mask:255.0.0.0
inet6 addr: ::1/128 Scope:Host
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)

sit0 Link encap:IPv6-in-IPv4
NOARP MTU:1480 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)

venet0 Link encap:UNSPEC HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
UP BROADCAST POINTOPOINT RUNNING NOARP MTU:1500 Metric:1
RX packets:23 errors:0 dropped:0 overruns:0 frame:0
TX packets:5 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:1688 (1.6 Kb) TX bytes:420 (420.0 b)

eth0 is immortal realtek 8139 as you can see.

Subject: Re: 2.6.18-028stab053 doesn't find my NIC.
Posted by adobriyan on Wed, 04 Jun 2008 08:37:19 GMT
View Forum Message <> Reply to Message

> 02:00.0 Ethernet controller [0200]: Broadcom Corporation NetXtreme BCM5722 Gigabit Ethernet PCI Express [14e4:165a]

0x165a support was added after 2.6.18, so try attached patch
and reload with new module.

> eth0 is immortal realtek 8139

In nuclear war realteks will survive. ;-)

File Attachments
1) tg3.patch, downloaded 573 times

Subject: Re: 2.6.18-028stab053 doesn't find my NIC.
Posted by januszzz on Wed, 04 Jun 2008 19:57:15 GMT
View Forum Message <> Reply to Message

Ok, done, interface is up. Honestly, one more question, maybe more distro specific:

how can I be sure that after reboot those cards are not switched back? now there is no problem, but if the power outage occurs and cards are switched, I'm cut off. From server and money too.

ANyway this is <SOLVED>.

Subject: Re: 2.6.18-028stab053 doesn't find my NIC.
Posted by adobriyan on Thu, 05 Jun 2008 09:22:44 GMT
View Forum Message <> Reply to Message

> how can I be sure that after reboot those cards are not switched back?

Well, on the kernel side ordering should stay the same,
assuming you
* aren't physically moving NICs in PCI slots, and
* don't flip between 2.4 and 2.6 kernels (those two enumerate
  PCI devices in different order, use pci=bfsort to get 2.4
  behaviour)
* and don't change =y/=m settings of NIC modules

Userspace (read: udev) on modern distros will try to rename
NICs back looking at their MACs. You can look at
/etc/udev/rules.d/70-persistent-net.rules (or how it's called).
