

Network interrupts

Source: <http://linux.derkeiler.com/Newsgroups/comp.os.linux.embedded/2004-07/0022.html>

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Hi All,

I am a newbie trying to bring up a board on MontaVista Linux. The board has an Intel IOP321 processor with an ARM core. The network interface is an Intel 82544EI. I have got as far as registering an ISR for the ethernet and entering the ISR. The logs seem to suggest that the interface was configured correctly. Following the config, the kernel is trying to connect to an NFS server (for the rootfs) but tcpdump on the server shows not a single packet from this interface. I am printing the ICR (interrupt cause read) register inside the handler and below is the output I see:

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=====
Intel(R) PRO/1000 Network Driver – version 5.0.43
Copyright (c) 1999–2003 Intel Corporation.
DEBUG::: Registering driver e1000 with PCI
eth0: Intel(R) PRO/1000 Network Connection
NET4: Linux TCP/IP 1.0 for NET4.0
IP Protocols: ICMP, UDP, TCP
IP: routing cache hash table of 1024 buckets, 8Kbytes
TCP: Hash tables configured (established 8192 bind 16384)
DEBUG::: Device : lo, User dev:
DEBUG::: Device : eth0, User dev:
DEBUG::: Registering IRQ handler for e1000, IRQ# = 30
DEBUG::: IRQ registered successfully
DEBUG::: e1000_intr: icr = 6
DEBUG::: e1000_intr: icr = 16
IP-Config: Complete:
    device=eth0, addr=172.20.41.42, mask=255.255.240.0,
gw=172.20.41.47,
    host=172.20.41.42, domain=, nis-domain=(none),
    bootserver=172.20.35.70, rootserver=172.20.35.70, rootpath=
NET4: Unix domain sockets 1.0/SMP for Linux NET4.0.
NetWinder Floating Point Emulator V0.95 (c) 1998–1999 Rebel.com
Looking up port of RPC 100003/2 on 172.20.35.70
DEBUG::: e1000_intr: icr = 16
DEBUG::: e1000_intr: icr = 16
DEBUG::: e1000_intr: icr = 16
....
```

Could anyone please tell me what could have gone wrong here. Is there anything else I need to do before I can see some packets on the wire? Any help or pointers would be really appreciated.

TIA,
Guru