DragonFlyBSD - Bug #2117

ACPI and/or bce(4) problem with 2.11.0.673.g0d557 on HP DL380 G6

08/18/2011 09:40 AM - pauska

Status:	New	**Start date:**	
Priority:	High	**Due date:**	
Assignee:		**% Done:**	0%
Category:		**Estimated time:**	0.00 hour
Target version:			

Description

I got a standard HP Proliant DL380 G6 server with a built-in quad broadcom NIC.

2.10 didn't have the updated bcn drivers, so I installed the 2.11.0.673 snapshot
to get connectivity.

First, the ACPI error (also present in 2.10):
[ACPI Debug] String [0xB] "_TMP Method"

This message repeats 60 times every 10 minutes. I have no idea what it means,
googling for it only points me at a NetBSD discussion from 2009.

Secondly, the bcn driver (or perhaps atapci?):

```
interrupt                  total       rate
sio2                           0          0
sio0                           0          0
acpi0                      12125          0
bce0                     1547359         26
bce1/atapci0          2293301893      39875 <-- ouch?
bce2                           0          0
bce3                           0          0
uhci0/ehci0                    1          0
uhci2/uhci4                   34          0
uhci1/uhci3                   44          0
ciss0                     267683          4
swi_siopoll                    0          0
swi_cambio                267762          4
swi_vm                         0          0
swi_taskq/swi_mp_taskq        25          0
Total                2295396926      39911
```

The weird part is that I dont have any ATA devices in use, there's only a CD-
rom. bcn1 isnt configured or marked up, only bcn0 is in use.

The deal breaker here is that I can't do anything disk intensive without getting
a crash. I tried updating pkgsrc yesterday, and here are two examples:

[snip]
* [new branch]   dragonfly-2010Q3 -> origin/dragonfly-2010Q3
*** Signal 10
Stop in /usr.
[snip]

[snip]
* [new branch]   master   -> origin/master
Bus error (core dumped)
*** Error code 1
Stop in /usr.
[snip]

While getting these errors messages like this flooded dmesg:
intr 16 at 40001/40000 hz, livelocked limit engaged!
[ACPI Debug] String [0xB] "_TMP Method"

intr 16 at 882/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
pid 34805 (git), uid 0: exited on signal 10 (core dumped)
intr 16 at 3225/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 751/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 765/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 795/20000 hz, livelock removed
[ACPI Debug] String [0xB] "_TMP Method"

I'm not familiar with debugging this, so please let me know if you need more info. I can also put the server in the DMZ and give a developer SSH access if needed.

History

#1 - 08/18/2011 09:43 AM - pauska

I forgot to mention that there is a Raritan KVM attached wich emulates storage devices (for mounting ISO's etc via the KVM client). Could this be the cause of the atapci interrupts?

#2 - 08/18/2011 09:52 AM - pauska

bce, not bcn. Sorry :(

#3 - 08/18/2011 09:58 AM - pauska

Update: the interrupt storm went away after disabling S-ATA in the BIOS.

#4 - 08/18/2011 10:12 AM - pauska

Update2: The interrupt storm came back on irq16/bce0 after doing heavy downloads via git.

intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 827/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 1223/20000 hz, livelock removed
[ACPI Debug] String [0xB] "_TMP Method"
intr 16 at 40001/40000 hz, livelocked limit engaged!
[ACPI Debug] String [0xB] "_TMP Method"
intr 16 at 2838/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
[ACPI Debug] String [0xB] "_TMP Method"
intr 16 at 2234/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 2685/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 790/20000 hz, livelock removed
[ACPI Debug] String [0xB] "_TMP Method"
[ACPI Debug] String [0xB] "_TMP Method"
[ACPI Debug] String [0xB] "_TMP Method"
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 825/20000 hz, livelock removed
[ACPI Debug] String [0xB] "_TMP Method"
[ACPI Debug] String [0xB] "_TMP Method"
[ACPI Debug] String [0xB] "_TMP Method"
[ACPI Debug] String [0xB] "_TMP Method"
[ACPI Debug] String [0xB] "_TMP Method"
[ACPI Debug] String [0xB] "_TMP Method"
seg-fault ft=0002 ff=000c addr=0x7fffffbffff8 rip=0x4e406a pid=814 p_comm=git
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 1169/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 954/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
pid 814 (git), uid 0: exited on signal 10 (core dumped)
intr 16 at 551/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 760/20000 hz, livelock removed
[ACPI Debug] String [0xB] "_TMP Method"

```
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 772/20000 hz, livelock removed
intr 16 at 40001/40000 hz, livelocked limit engaged!
intr 16 at 911/20000 hz, livelock removed

interrupt                          total       rate
irq3: sio2                             0          0
irq4: sio0                             0          0
irq9: acpi0                        12113         12
irq16: bce0                      1468203       1478
irq17: bce1/atapci0                    0          0
irq18: bce2                            0          0
irq19: bce3                            0          0
irq20: uhci0/ehci0                     1          0
irq22: uhci2/uhci4                     1          0
irq23: uhci1/uhci3                     1          0
irq28: ciss0                      185332        186
irq192: swi_siopoll                    0          0
irq195: swi_cambio                185396        186
irq196: swi_vm                         0          0
irq197: swi_taskq/swi_mp_taskq         0          0
Total                            1851047       1864
```

#5 - 08/18/2011 10:26 AM - pauska

Update3: Disabling ACPI in the boot loader made it even worse, now the NIC won't come up (getting "bce0: Watchdog timeout occured, resetting!" repeatedly in the console).

#6 - 08/18/2011 10:49 AM - pauska

Verbose boot dmesg attached

#7 - 08/22/2011 10:15 AM - sepherosa

http://leaf.dragonflybsd.org/~sephe/if_bce.c.diff

Please test the above patch.

Files

dmesg.txt	68.8 KB	08/18/2011	pauska