Subject: Re: 64bit DMA in i2o_block
Posted by Markus Lidel on Fri, 22 Sep 2006 10:14:27 GMT
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Hello,

Vasily Averin wrote:
> I've found that your driver does not work correctly with following options:
> CONFIG_I2O_EXT_ADAPTEC=y
> # CONFIG_I2O_EXT_ADAPTEC_DMA64 is not set
> I've checked it on 2.6.18 kernel on x86_64 node with 4Gb memory.

That could be the reason for the problems. I've only tried it on x86_64
machines with < 4 GB memory...

> I would note that I've not noticed any bugs on x86 kernels, but x86_64 does not
> work at all.
> The behaviors of x86_64 kernels can differ:
> sometimes driver can not find partition table:
> i2o/hda: unknown partition table
> sometimes it find not all partition:
> i2o/hda: i2o/hda1 i2o/hda2 i2o/hda3 i2o/hda4 < >
> in other cases it detects devices well but corrupt the memory and filesystem:
> Sep 21 16:46:09 ts10 block-osm: registered device at major 80
> Sep 21 16:46:09 ts10 i2o/hda: i2o/hda1 i2o/hda2 i2o/hda3 i2o/hda4 < i2o/hda5 >
> Sep 21 16:46:09 ts10 block-osm: device added (TID: 207): i2o/hda
> Sep 21 16:46:09 ts10 kjournald starting. Commit interval 5 seconds
> Sep 21 16:46:09 ts10 EXT3-fs: mounted filesystem with ordered data mode.
> Sep 21 16:46:10 ts10 Freeing unused kernel memory: 236k freed
> Sep 21 16:46:10 ts10 hotplug[961]: segfault at 0000000000000008 rip
> 00000032411088cf rsp 00007fff5b189050 error 4
> When I enabled CONFIG_I2O_EXT_ADAPTEC_DMA64 -- all the troubles went away.
> I've tried to investigate this issue, but I've not found and documentation
> described format of Adaptec's private messages.
> I would like to ask you, is this behavior specific for my hardware (Adaptec
> ASR-2010S I2O Zero Channel)? If not, I believe it makes sense to enable
> CONFIG_I2O_EXT_ADAPTEC_DMA64 in Kconfig by default for 64-bit kernels.

I believe it's a driver issue. Do you have a testing-system where you
could try out the appended patch?

Thank you very much.

Best regards,

Markus Lidel

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