
Subject: RE: [PATCH 2.6.19-rc2] scsi: megaraid_{mm, mbox}: 64-bit DMA capability fix

Posted by [Seokmann.Ju](#) on Mon, 16 Oct 2006 20:37:20 GMT

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Hi,

> Er ... this patch would apply in reverse, but what's in the tree
> currently looks to be correct.

No, the patch submitted by Andrey and Vasily should fix the issue.

Without this, driver still claims 64-bit DMA capability for those MegaRAID SATA controllers.

Example)

For SATA 150-6 with OLD filter,

```
if (((1) && ((0) || (1))) || (0) || (0) || (0) || (0) || (0) {  
    ...;  
}
```

driver gets into inside of if clause and set DMA mask with 64-bit which is NOT correct.

However, with the patch,

```
if (((1) && ((0) && (1))) || (0) || (0) || (0) || (0) || (0) {  
    ...;  
}
```

driver bypasses this filter and stay with 32-bit DMA mask.

Seokmann

> -----Original Message-----

> From: James Bottomley [mailto:James.Bottomley@SteelEye.com]

> Sent: Monday, October 16, 2006 3:35 PM

> To: Vasily Averin

> Cc: Linux Kernel Mailing List; linux-scsi@vger.kernel.org;

> Ju, Seokmann; Andrew Morton; Linus Torvalds;

> devel@openvz.org; Andrey Mirkin

> Subject: Re: [PATCH 2.6.19-rc2] scsi: megaraid_{mm,mbox}:

> 64-bit DMA capability fix

>

> On Mon, 2006-10-16 at 12:08 +0400, Vasily Averin wrote:

> > It is known that 2 LSI Logic MegaRAID SATA RAID Controllers
> > (150-4 and 150-6)

> > don't support 64-bit DMA. Unfortunately currently this

> > check is wrong and driver

> > sets 64-bit DMA mode for these devices.

> >

> > Signed-off-by: Andrey Mirkin <amirkin@sw.ru>

> > Ack-by: Vasily Averin <vvs@sw.ru>

> >

> > ---

```
> linux-2.6.19-rc2/drivers/scsi/megaraid/megaraid_mbox.c.mgst6
> 2006-10-16
>> 10:26:50.000000000 +0400
>> +++ linux-2.6.19-rc2/drivers/scsi/megaraid/megaraid_mbox.c
> 2006-10-16
>> 11:30:55.000000000 +0400
>> @@ -884,7 +884,7 @@ megaraid_init_mbox(adapter_t *adapter)
>>
>> if (((magic64 == HBA_SIGNATURE_64_BIT) &&
>> ((adapter->pdev->subsystem_device !=
>> - PCI_SUBSYS_ID_MEGARAID_SATA_150_6) ||
>> + PCI_SUBSYS_ID_MEGARAID_SATA_150_6) &&
>> (adapter->pdev->subsystem_device !=
>> PCI_SUBSYS_ID_MEGARAID_SATA_150_4))) ||
>> (adapter->pdev->vendor == PCI_VENDOR_ID_LSI_LOGIC &&
>
> Er ... this patch would apply in reverse, but what's in the tree
> currently looks to be correct.
>
> James
>
>
>
```
