
Subject: Re: unexpected scsi timeout

Posted by [James Bottomley](#) on Wed, 25 Jul 2007 13:06:41 GMT

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On Wed, 2007-07-25 at 16:42 +0900, Tejun Heo wrote:

> Vasily Averin wrote:

> > Albert Lee wrote:

> >>>> Vasily Averin wrote:

> >>>>> I've noticed that some scsi commands for DVD-drive attached to pata_via

> >>>>> successfully finishes without any delays but reports about TIMEOUT condition. It

> >>>>> happens because of ATA_ERR bit is set in status register. As result for each

> >>>>> command Error Handler thread awakened, requests sense buffer and go to sleep again.

> >>>> Need more info. Please post boot dmesg and the result of 'lspci -nn'

> >>>> and 'hdparm -I /dev/srX' and when such errors occur.

> >> Your log looks ok. It's normal for TEST_UNIT_READY to return ATA_ERR when no disc

> >> inside and libata EH triggered to request sense.

> >

> > It's a bit strange for me, IMHO other scsi drivers requests sense buffer without

> > EH thread assistance.

> > Currently we know that ATA_ERR can be returned; it is not error, but one of

> > expected responses. Why we cannot request sense without EH? I would like to

> > understand is it implementation drawback or I missed something probably?

>

> That was a design choice. It's easier to implement that way.

And just so we're clear what SCSI allows:

On ordinary SCSI devices, when the device goes into a check condition

state, it won't accept any more commands until it sees a request sense.

For SCSI devices this can be a problem (because there are several thousand sense conditions, some of which correspond to everything's

alright), so a large number of SCSI drivers implement auto request sense

emulation, which means that in the driver, as soon as they see the check

condition, they immediately send a REQUEST SENSE command to pick up the

sense code (minimising the time the device is blocked).

For drivers that don't want to implement this (and we have a few in

SCSI) the alternative mechanism is to have the eh thread collect the

sense data. This is the route libata has chosen.

James
