

Re: Adaptec SCSI card problem

Source: <http://linux.derkeiler.com/Newsgroups/comp.os.linux.hardware/2008-03/msg00066.html>

- *From:* Aragorn <aragorn@xxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Sat, 08 Mar 2008 13:38:35 +0100
-

Michal wrote:

Hi,
does anyone know what is the problem with this SCSI card?
I tried to install this card on Debian 4.0, Ubuntu 7.10, Fedora Core 8,
Slackware 12 and I have always the same message from the SCSI card.
Under Windows 2k3 it works perfectly.

Now I installed Red Hat Enterprise WS 4.4, I installed Adaptec 29320ALP
drivers for Red Hat Enterprise WS 4.4. To this SCSI card I have connected
Vtrak Promise 310p with 3 LUNs. Server is HP ProLiant 360 G5.
Adaptec 29320ALP is supported by HP, Vtrak Promise 310p and Red Hat
Enterprise WS 4.4.

This is the error message :

<snipped for brevity>

Okay, now first of all, I am no expert on SCSI error reporting, but from
what it looks like to me, the problem is to be found in the driver, rather
than in the adapter itself. In addition to that, you are saying that you
installed the driver package that came with your card, and this may be
(part of) where the problem lies.

The Adaptec 29320A and 29320ALP cards are of the so-called HostRAID Ultra320
SCSI adapter family, which means that they can be used in two modes, i.e.
either as a regular Ultra320 SCSI adapter or as an Ultra320 SCSI hardware
RAID controller. In the former case – i.e. if you're going to use it as a
regular U320 SCSI adapter without RAID functionality – you need only one
driver for it.

This driver is developed and maintained by Adaptec itself as GPL-licensed
Free & Open Source Software and has been part of every /vanilla/ kernel –
i.e. the Linux kernel as it is supplied in a tarball by Linus Torvalds and
friends via the Linux Kernel Archives (<http://www.kernel.org>) – since these
adapters were released onto the market.

Re: Adaptec SCSI card problem

Every GNU/Linux distribution uses the /vanilla/ kernel as their basis for the development of their distribution-specific kernel. They generally pick the most recent "stable" release at the time of the distribution's initial alpha build and then add patches which increase functionality (but often break other things). As such, every fairly modern distribution already comes with this driver pre-installed as a module, and distribution-specific kernels are normally configured to automatically load the proper driver modules at boot-time hardware detection.

The driver modules supplied on the Adaptec CD-ROM (or floppy disks) are typically outdated by the time you get to remove the shrinkwrap plastic of the adapter box, so it is always best to use the driver that comes with the Linux kernel itself. The name for the driver is `*/aic79xx/*` – note: this is not the same thing as the `*/aic7xxx/*` driver, which is for `_Ultra160_` devices.

On the other hand, if you want to use this adapter as a RAID controller, you'll need both the in-tree distro-supplied `/aic79xx/` driver – or kernel.org-supplied driver if you've decided to build your own kernel – and the RAID driver. The latter driver module will probably also be supplied on your Adaptec CD-ROM, but it is generally better to check Adaptec's website for a more recent driver.

That all said, RedHat 4.4 is already old. I'm not really up to date on RedHat but we use CentOS – i.e. the freely downloadable version of RHEL – on our own servers, and we're currently running CentOS 5.1, so there should already be a RedHat EL 5.1 out as well then. In other words, you're running an older kernel, and therefore more recent drivers than the ones you are using do already exist.

In addition, even though all components of your set-up are compatible with one another and even though this little piece of advice won't actually help you, I would personally not go for a 29320 adapter for such a set-up, but much rather for a "native" RAID adapter. Yours is a HostRAID adapter, which is basically a regular SCSI controller with RAID functions added to it, but most modern – i.e. Ultra320 RAID, serial attached SCSI RAID, SATA RAID – native RAID Adaptec cards use only one driver, i.e. the `/aacraid/` driver.

This `/aacraid/` driver is entirely GPL'ed and is supplied as part of the Linux kernel source tree, which makes it easier to maintain and debug, whereas the driver that engages the RAID functionality on HostRAID adapters is proprietary and binary-only, which makes it harder to get rid of the bugs.

Anyway, to cut the long story short and to give you my most ad hoc advice, install CentOS 5.1 on that machine and see whether this solves your problem. The problem is obviously in the driver itself, not in the adapter card, or else your Windows set-up would have complained about it as well with similar error messages – did you check the logs, by the way?

Re: Adaptec SCSI card problem

(Not that I trust Windows any farther than I can throw it, but Windows, being a proprietary platform, would not come with any of those drivers built-in either and so it would also be making use of Adaptec-written drivers.)

Hope this helps...

--

Aragorn
(registered GNU/Linux user #223157)

.