

Re: ZFS with Linux: An Open Plea

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2007-04/msg10184.html>

- *From:* Valerie Henson <val_henson@xxxxxxxxxxxxxxxx>
 - *Date:* Thu, 26 Apr 2007 22:21:02 -0700
-

On Wed, Apr 18, 2007 at 01:25:19PM -0400, Lennart Sorensen wrote:

Does it matter that google's recent report on disk failures indicated that SMART never predicted anything useful as far as they could tell? Certainly none of my drive failures ever had SMART make any kind of indication that anything was wrong.

I saw that talk, and that's not what I got out of it. They found that SMART error reports `_did_` correlate with drive failure. See page 8 of:

http://www.usenix.org/events/fast07/tech/full_papers/pinheiro/pinheiro.pdf

(If you're not a USENIX member, you may be able to find a free download copy elsewhere.)

However, they found that the correlation was not strong enough to make it economically feasible to replace disks reporting SMART failures, since something like 70% of disks were still working a year after the first failure report. Also, they found that some disks failed without any SMART error reports.

Now, Google keeps multiple copies (3 in GoogleFS, last I heard) of data, so for them, "economically feasible" means something different than for my personal laptop hard drive. I have twice had my laptop hard drive start spitting SMART errors and then die within a week. It is economically quite sensible for me to replace my laptop drive once it has an error, since I don't carry around 3 laptops everywhere I go.

-VAL

-

To unsubscribe from this list: send the line "unsubscribe linux-kernel" in the body of a message to majordomo@xxxxxxxxxxxxxxxx

More majordomo info at <http://vger.kernel.org/majordomo-info.html>

Please read the FAQ at <http://www.tux.org/lkml/>