

## **Just how solid are solid-state computer drives?**

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Solid-state drives (SSDs) are all the rage among the tech elite. Using flash memory instead of the spinning platters of traditional hard drives, SSDs are used as lightweight drives in the thinnest and lightest laptops and as performance boosters in gaming-oriented computers. But just how safe and secure are solid-state drives? Well, according to recent reports, perhaps not as safe as you might think.

### **SSDs are far from trouble free**

Logically, one might expect that solid-state drives, with their fewer mechanical parts, would fail less often than traditional drives with their rapidly spinning platters. However, the data shows that's not the case. For example, as noted in an article at Bit-Tech.net, 57% of the 560 people polled by data recovery firm Kroll Ontrack said that they'd lost data using SSD/flash technology. Three quarters of those in the survey said they figured any data lost on an SSD was permanently gone since getting data off the drives was "nearly impossible or complicated" compared to the process used to recover information from damaged traditional hard disk drives. In fact, Kroll Ontrack agrees that recovering information from SSD/flash drives is indeed tougher than from a traditional hard drive, thanks to the fact that data is physically stored in more places on an SSD compared to other types of drives, and that there are no set standards for data storage on SSDs from manufacturer to manufacturer.

Tom's Hardware also did a study on this topic this past summer, comparing hard drive reliability to that of solid-state drives. "You have to acknowledge that we're dealing with a technology that's simply a lot newer (and consequently less mature) than mechanical storage," Andrew Ku writes in the Tom's Hardware story, concluding after summarizing the research that "... we really can't make the assumption that an SSD is more reliable than a hard drive."

The story's data points show, in fact, that SSDs are fairly similar to hard drives in failures in their early years -- but they haven't been on the market long enough to establish how they'll perform in the long term. Hard drive failure rates do rise fairly steeply the older the drive gets, however.

Still, given that there seems to be not much difference in the failure rate of SSDs compared to traditional drives, and given the lower price of the latter, it is hard to make a case for SSDs except when their very fast performance or much lighter weight become critically important.

For certain, there appears to be little reason to go with an SSD-based external hard drive for back up purposes, and all of the Best Reviewed choices in our report on external hard drives do use older -- and apparently still relatively reliable -- spinning platter technology. In that report, you can learn about budget drives, external hard drives that can attach directly to your network to serve a number of computers, and even hardy external drives that can withstand temperatures of more than 1,500 degrees or endure a three-day dunk in the lake.