

Can Solid State Flash Drives Replace Hard Disks?

The USB drive can boast of a particularly glorious rise to the top. They have won awards for industrial design, they have risen faster than the CD, and they are next to only the cell phone in popularity among all digital devices.

The capacity of the USB drive is growing larger rapidly. At the same time, its cost is falling fast, thanks to the immense market demand and close competition among several manufacturers. Unlike the hard disk, many more companies make the USB drive as it is relatively less complicated to assemble and does not require such heavy infrastructure and regulations as a hard disk. Therefore, it is hardly surprising if the same technology is used to develop a new kind of drive as well. The solid state flash drive uses the same flash technology as a USB drive or memory stick, but it is a disk that is 64GB in size, i.e. equal to a hard disk.

Advantages of Flash Drives

So what is so unique about the flash drive and why has it drawn so much attention and controversy on the net forums, blog spots, techie chat sats and what has made the press interested in it? Here are some of its advantages:

A flash drive is much easier to use than a hard drive will ever be. All one has to do is plug it into the USB port, and it will start running. It is like getting a whole computer added on to yours in a matter of seconds.

Like all flash memory devices such as the pen drive or digital camera memory, it is very fast. Your files will be written in a moment, big folders will open at one click with great ease and copying or saving a file will be cakewalk. All hard disks get slower as they fill up, but that will not be the case with these drives. This means more efficient manipulation of programme files and OS if they are loaded on to such a drive. Everything will move very fast and very smoothly when operated from the flash drive.

The flash drive does not have an elaborate circuit board, lots of moving, rotating, twirling parts and lots of hardware attached to it. The external dependency on related hardware is much less in the context of the flash drive. This means that the flash drive has less chances of crashing.

Given all these advantages of the flash drive, the chances of data loss from it are much less. It also means that data recovery will be faster, easier and cheaper compared to any hard drive.

They have already been designed to suit a laptop as an internal storage device. This is a great choice for those who need to be on the move constantly. The flash drive will be lightweight, easy to use and perfect for laptops, camera, digital games etc.

Disadvantages of Flash Drives

There are some disadvantages of this technology as well.

The cost factor is absurdly high at this moment. No one in their right minds will want to buy a \$90,000 disk with a capacity of 64 GB! No matter how exciting the technology may sound, this is still essentially a millionaire's toy. However, the price should start falling if it catches on well in the market. This will take some time though, and the portable hard disk may beat it in the race by then.

The flash drive will not have external dependencies. That also means that once something goes wrong with it, the user will either have to repair it at a great cost or just throw it away. None of the options sounds feasible, and the data sitting on it will be lost at a greater cost than a hard drive.

Hybrid Drive – Best of Both

So if the question arises whether hard disks will be obsolete with the arrival of flash drives, then it is too early to guess at the answer yet. But the hybrid drive is already there as a golden mean – a hard drive with NAND technology like the flash. It saves power massively, and works even on the hibernation mode. Let us see what the future holds for all these formats.

About the Author

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