

## WHAT YOU DO NOT KNOW...Part 1

In January 2016 we wrote about the growth of SSD (electronic hard drives) vs. HDD (mechanical hard drives) and what their major differences were. 14 months later we can see radical changes in what hardware companies are offering customers, such that the average shopper can be fooled into buying a device they may quickly find inadequate. Keep in mind we're talking only about hardware not operating systems like Windows or Mac.

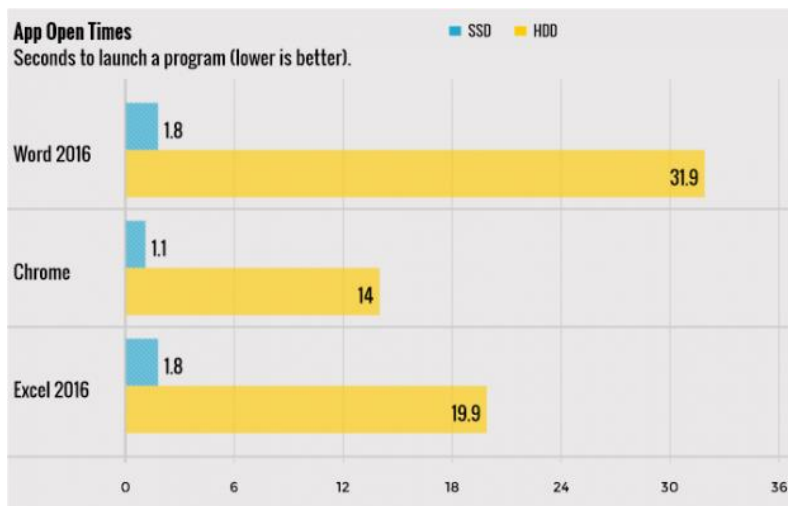
With technology that dates back to the 1950s, HDDs feature a spindle that moves over a rotating magnetic platter, grabbing data like an old-school record-player needle drawing sound from a vinyl LP. Would you buy a brand-new car with a Ford Model T engine? Would you buy an old fashioned LP disc or a digital version? Of course not so why would you use a PC/laptop that uses an old-school HDD? To have a fast, responsive device today you need an SSD.

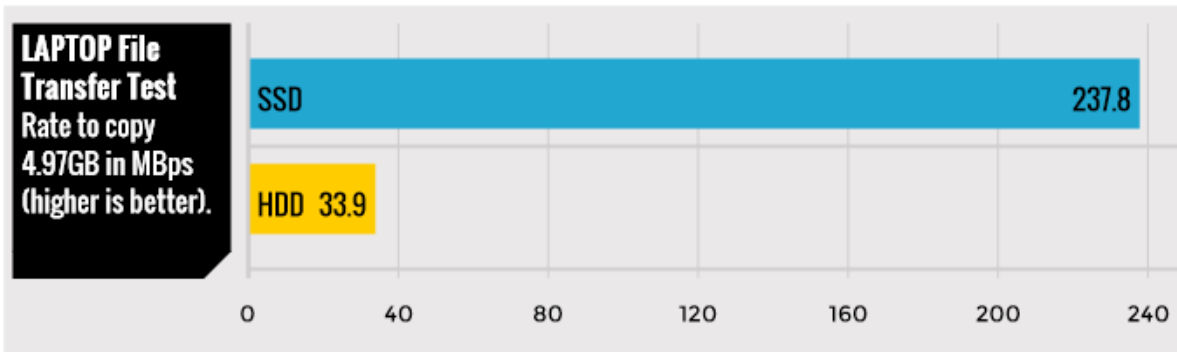
To help simplify and clarify what you need to know, there are 6 topics that we'll address:

1. Performance
2. Battery life
3. Storage space
4. Cloud computers
5. Storage
6. Upgrading

### PERFORMANCE

When it comes to overall performance, a storage drive is much more important than other components (CPU, RAM, graphics chip). As you boot the computer, open applications and switch between tasks, your processor awaits data to load from the disk. Even if you're not opening files, transferring data or launching apps, your OS and software are using virtual memory (aka swap files) in the background. Because an SSD has no moving parts, it can read and write data infinitely faster than an HDD. It is most evident when booting or opening an application. With an SSD, the computer can work as fast as you do; it obviously copies files more rapidly than an HDD.





### BATTERY LIFE

SSDs use less power than HDDs because they don't power any moving parts. The average SSD-enabled laptop can last 7 hours 9 minutes on the Laptop Battery Test which involves continuous surfing over Wi-Fi. HDD-powered laptops averaged 5 hours 43 minutes.



As for durability, remember that SSDs do not have fragile needles and platters so they tend to last longer.

### STORAGE SPACE

Laptops that come with SSD usually have 128GB or 256GB upgradable to 1 TB of storage, enough for all your programs and a decent amount of data. Users who have lots of demanding games or huge media collections will want to store some files in the cloud or add an external hard drive. Some gaming and workstation-class laptops offer the best of both worlds, having a fast SSD and a spacious hard drive. The lack of storage may be disappointing but the increase in speed is worth it so if you can afford it, 256GB is a lot more useful than 128GB.

To be continued...