Almost all desktop and laptop computers use a Hard Disk Drive (HDD) for non volatile storage. The information on the HDD is preserved while your computer is powered off. The operating system, your programs, and your data reside on the HDD. An HDD is a sealed unit consisting of magnetically coated platters which spin at high speed when powered on, and read/write heads on an arm to access the data.

A Solid State Drive (SSD) performs the same function as a HDD, non volatile storage while the computer is powered off, and access to data when the computer is powered on. The SSD is comprised of flash memory chips which can store information when powered off. The most common SSDs are packaged in the same shape as a 2.5" HDD, with same connectors, so a HDD can be physically replaced by a SSD.

**Ferrari like speed with Toyota reliability**

The SSD has two huge advantages over the HDD: speed and reliability. SSDs are 6 to 10 times faster than HDDs. Without any moving parts, the failure rate is significantly lower. A mid range Windows computer with a SSD will typically boot in 12 to 20 seconds. Your programs will load much faster with a SSD. Accessing the internet involves the computer storing lots of small files in a data cache on the computer's non volatile storage device. Because of all the read/write activity, internet surfing on a SSD equipped computer is much more robust than on a HDD equipped computer.

**Higher price, Less capacity**

SSDs are more expensive than HDDs, so the typical SSD will have less capacity. But most computer users only use a small fraction of the capacity of their HDD, so capacity is usually not an issue.

**Upgrading**

If you decide to pursue this upgrade, one option is to load a fresh version of the operating system on the SSD, reload all your programs, and transfer your data from the old HDD to the SSD. Alternatively, you may attempt to clone the old HDD to the new SSD. In this case, your new SSD is most likely a smaller capacity than your old HDD, so make sure that the cloning software is able to properly reformat the main data partition to the new smaller size. If your old HDD is in a tower chassis, it is most likely a 3.5" form factor, so you will need a mounting adapter for the 2.5" SSD.