

# Storage device

Technology, Information Technology



Computer Storage The digitization of the globe is mainly spearheaded by computer technology that has replaced the older methods of data storage. Computer storage refers to any hardware devices whereby data can be held and it is categorized in two group's namely primary and secondary storage

#### Primary storage

Primary storage is the internal memory or the main memory in a computer device which is stores data for short periods of time while the computer is working. It can also be defined as any data storage device that is capable of storing nonvolatile data while the computer is running. RAM, graphic card memory and cache are the common primary storage devices, and they hold data from secondary devices while it is being used by the computer. The primary memory does not store data for future use due to its small size and lack of capability to store data permanently since they require continuous electric current as opposed to magnetism in secondary devices. RAM has high speed and is accessed with minimal delays due to its direct connection to the CPU via memory buses. RAM is mainly used to store data located in programs and operating system and hence it is necessary that every computer has a secondary device for data storage.

#### Secondary storage

Secondary storage is also known as auxiliary storage and is defined as any storage devices that are volatile and may be located inside or outside the computer. Secondary storage devices serve as an addition to the primary memory, and their function is to store data permanently. Secondary storage devices can store data ranging from megabytes to petabytes depending on their storage capacity (Matick 18). Such devices store the installed

applications, the operating system, drivers and any other information that the computer user is willing to save. Secondary storage devices do not have a direct connection to the CPU and instead they receive and send data to the CPU through I/O buses. The speed of the secondary storage devices is considerably slower as compared to that of the RAM and hence cannot transfer data quickly. These devices are advantageous since they store data magnetically, and it is retained once the computer is switched off.

The most common type of secondary storage device is an internal hard drive, but there exists many other forms of secondary storage e. g. DVDs, floppy disks, external hard disks, and flash discs. Most secondary storage devices have speeds ranging from 3600RPM TO 7200RPM and are nonvolatile therefore being reliable in data storage and backup (Matick 18). Hard disks are advantageous because they are normally integrated into the computer and are hence very robust. However, they are disadvantageous in that they make the computer very slow while they are full. CD ROM that has gained popularity in recent decades is of great importance in data storage since they have large capacities, they are cheap, and some of them can be re-used e. g. the CD-RW and the DVD-R. Despite these advantages, the CD ROM is disadvantageous since some disks cannot be re-used, some machines cannot read DVDs and have high risk of destruction when exposed to dust and water.

Work cited

Matick, Richard E. Computer Storage Systems and Technology. New York [u. a.]: Wiley, 2005. Print.