Computer hardware

Running Head: Computer Hardware Computer Hardware [Institute's There are many physical components of hardware on which a multitude of softwares can be installed so that the machine as personal computers can work properly in order to fulfill the users' needs. In any case PC hardware always has a motherboard on which chipsets are present, and also a processing unit known as the CPU, as well as the memory parts called RAM.

Introduction

Personal computer cannot be regarded to be a complete machine unless the hardware, operating systems and software are not completely installed on it. The hardware is the backbones of any machine including personal computers. It includes memory sets such as the RAM, BIOS, Serial busses, mother board as well as hard drives (Tyson, and Coustan, 2005, p. 1-4).

The RAM

Among the many hardware in personal computers the most important part for any PC is the memory part and this includes the RAM, or in other words, the Random access Memory. It is known as the random access memory as the user can access any cell of the memory if the rows and columns to the memory are well known to the user (David, Hennessy, and Ashenden, 2004, p. 33).

RAM is the memory chip that has millions of small and minute integrated elector circuits on the chip and these are the circuits that are composed of transistors as well as capacitors. A memory cell is created in the Dynamic RAM by pairing the transistor and the capacitor. The storage unit of the memory cell is in bytes and it has been calculated that the memory cell has the capacity to store a byte of the data.

During the manufacturing of the RAM memory cells are attached to the Ram

in the form of the rows and the columns. The rows in this case are known as wordlines and the columns are known as bitlines. For the working of the Ram a charge is sent through the column which activates the attached transistor within a time period of nano seconds. Each bit of the memory is held by a flip flop having four to six transistors and it has been seen to be better than the transistors in the sense that these do not need to be refreshed as compared to the Dynamic RAM (Abd-El-Barr, & El-Rewini, 2005, p. 33).

Dynamic RAMS are found to be expensive and slower as compared to the Static RAMS which are faster along with being affordable. RAMs are usually available in the form of modules where the number of chips is multiplied by the capacity of the chip. The customers buy chips based on the module numbers. The greater the capacity the greater is the demand of the RAM as the performance of the PC seems to be enhanced with higher storage capacity RAM (Sarkar, 2006, p. 31).

Conclusion

Memory is the most important part of any PC architecture as it is the one part that decides the speed and performance of a PC. Users and customers these days are having a demand of higher and faster storage devices.

References

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