Section 1: CPU

If you have ever worked with computer or saw someone built it at some point you know that CPU is a single chip. That chip have many things happening in it when the computer is on and working, while older CPU only had one chip newer ones have many more on a single processor (Messer, *CPU Features - CompTIA A+ 220-1001 - 3.5* 2019). In the modern days processor could have as many as 8 cores, or even more, to as low as 2 cores, or called dual cores, then there’s the usual of 4 cores and 6 cores (Messer, *CPU Features - CompTIA A+ 220-1001 - 3.5* 2019). The more cores a processor has the more activity it will be able to perform without losing performance (Messer, *CPU Features - CompTIA A+ 220-1001 - 3.5* 2019). Each processor will have its own cores and cache and the amount of each depends on how expensive it is most likely (more cores would likely to cost more than lower ones). Usually there will be a few level of cache, which is a type of memory in the processor that is a temporary space for the activity that is happening when going through the processor (Messer, *CPU Features - CompTIA A+ 220-1001 - 3.5* 2019). Virtualization is a very common thing to do in current business world, it allows us to run and use multiple operating system at the same time on the same computer, with that meaning one computer can have many operating system on at the same time (Messer, *CPU Features - CompTIA A+ 220-1001 - 3.5* 2019). Inside of our processor chip there is specialized hardware that greatly improves how virtualization performs, depends on your manufacturer of your CPU, Intel is called Intel’s Virtualization technology while AMD is called AMD virtualization (Messer, *CPU Features - CompTIA A+ 220-1001 - 3.5* 2019). CPU are usually only supposed to be working on one activity at a time but a new technology was discovered to make them work on addition activity at the same time, meanings it could count as an additional CPU, this is called threading, CPU acting as multiple ones is called HTT or Hyper Threading (Messer, *CPU Features - CompTIA A+ 220-1001 - 3.5* 2019). Two big company that is dominating the CPU world is Intel and AMD while Intel offer more performance it is more expensive while AMD offer more affordable but with a little less performance (Messer, *CPU Features - CompTIA A+ 220-1001 - 3.5* 2019).

Section 2: Personal Computer

Many people will need many different type of computer depends on what type of things they plan on doing with the machine. An example is a graphics workstation, a workstation machine will usually have high amount of RAM for fast computing power and a large SSD for fast storage transfer (Messer, *Custom Computer Systems - CompTIA A+ 220-1001 - 3.8* 2019). Another workstation is the audio/video editing station, which usually require a high powered graphics card and CPU to compute the highest details possible and the highest resolution available (Messer, *Custom Computer Systems - CompTIA A+ 220-1001 - 3.8* 2019). Another station would be a Gaming PC, fast gaming PC required a fairly large SSD for fast loading time, an expensive graphics card for the highest possible framerates and details, large amount of RAM to multitask if wanted, a good CPU to handle everything and very good cooling since most likely it will be on for long amount of time (Messer, *Custom Computer Systems - CompTIA A+ 220-1001 - 3.8* 2019). For more work focused, you might want a NAS, or Network-attached storage device, this device will let you access any device that is connected to it while also allow you to access files such as videos to stream over any device, making it very compact, NAS would benefit a lot from a fast connection (Messer, *Custom Computer Systems - CompTIA A+ 220-1001 - 3.8* 2019). While it’s great, it’s not good when one drives fails then you can no longer access the data so RAID array setup, or redundant array of inexpensive disks, will make your data still accessible even when one fails (Messer, *Custom Computer Systems - CompTIA A+ 220-1001 - 3.8* 2019). There is two type of client, thin and thick. Thick client runs all software from the current computer, so if a software requires high amount of processing power your computer must meet that requirement to run the said software while a thin client is basically a machine that reaches into the server and connect to another device then the said connected device will run whatever program the thin client want it to, it just means that the screen on the thin client is there to show what is running on the other device, most likely an application the thin client cannot run by itself (Messer, *Custom Computer Systems - CompTIA A+ 220-1001 - 3.8* 2019).

Citation

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