Comparison of amd and intel

When it comes down on choosing a processor, AMD and Intel should come to mind. Choosing one could be difficult, especially if the reason you need a processor is unknown. Knowing the basics in what processors do in a computer will greatly help in comparing both companies and lastly the decision for either may come down to price.

A processor on the computer is what a brain is to us humans, they both make the rest of the machine work. The brain is made up of many parts and they work together to function. Similar to the brain the processor is made up of parts too, three in particular; Control Unit, Arithmetic Logic Unit, Memory or Storage Unit (" Computer-CPU (Central Processing Unit)", 2017). To summarize the subsections of, " Computer-CPU (Central Processing Unit)", the Control Unit transfers data, manages and coordinates, interprets and directs instruction from the memory, communicates with Input/Output devices. The Memory or Storage Unit; stores all the data and instructions for processing, stores intermediate results of processing, stores final results before they are released to an output device, and finally all inputs and outputs are transmitted through main memory. The Arithmetic does math while the Logic performs operations like comparing, selecting, matching and merging data (" Computer-CPU (Central Processing Unit)", 2017). Each part is what makes the processor a magnificent invention that keeps on improving.

One of the things that makes CPU, processors, so fast is the way they access information in the memory by cache and registers. In the article titled " How Computer Memory Works", Jeff Tyson writes that the CPU uses caches that hold data that is often used so that it is readily available for use, the

registers however have data that is needed by the CPU's arithmetic and logic unit so that its able to process the information (2000). Although Tyson's article was published seventeen years ago, cache and registers still work the same but now there is more levels to the cache, L3 and L4. When it comes to cache size however, bigger doesn't always mean better as Joel Hruska wrote in his article titled, " How L1 and L2 CPU caches work, and why they're an essential part of modern chips", Joel was looking at a processor that had an L4 with the size of 128MB and compared it to L1, L2, L3 processors without an L4 and noticed that it was faster up to the point where it was slower than the other processors saying, " Larger caches are both slower and more expensive" (2016). With this in mind, just because it has more or is the most expensive processor doesn't necessarily mean it should be the one bought.

The pricing of processors varies and the budget of the build comes to mind. Many articles like Matt Smith's, " Intel vs. AMD: Which brand of CPU should you choose when building a PC?", usually end on the same note, Intel if you have money to spend and AMD if you need to conserve. The way Smith puts it, is that once you get to a point where your budget meets lower or the same priced processors, Intel's doesn't perform as well as AMD's would. Since new technology keeps coming out, looking for deals is recommended, you may even find someone selling a once high end processor for a cheap price since the person is upgrading to an even newer better processor. So when it comes down to choosing either AMD or Intel, looking at what is available and keeping in mind what you need the processor for, choosing may ultimately come down to the price as the speed and other features of the processor affect the price.

References

" Computer-CPU (Central Processing Unit)" *Computer Fundamentals* . N. p., n. d. Web. 20 Feb. 2017. .

Hruska, Joel. " How L1 and L2 CPU Caches Work, and Why They're an Essential Part of Modern Chips." *ExtremeTech* . N. p., 17 Feb. 2016. Web. 20 Feb. 2017. .

Smith, Matt. " Intel vs. AMD: Which Brand of CPU Should You Choose When Building a PC?" Digital Trends. N. p., 24 Nov. 2016. Web. 13 Feb. 2017.

Tyson, Jeff. " How Computer Memory Works." *HowStuffWorks* . N. p., 23 Aug. 2000. Web. 20 Feb. 2017. .