A Guide to Buying a New Computer

Buying a new computer can be tricky. Let's face it, even the labels can sometimes seem like they are written in another language and by nature we will always clump for an offer.

If we can save a little less money, so much the better, but is this always the best option and what do those labels actually mean?

First things first, here is some technical translation for you, for items you can typically expect to find on a label or description;

Central processing unit (CPU): The CPUs brand name tells you what generation the component is (Intel expects up to 10% performance increase per generation).

AMD APUs or Accelerated Processing Unit are CPUs that have graphics integrated with them these are the AMD Axx **** Brands, such as the AMD A10 7850k.

The CPU is the brain of your computer, it tells you what component can do what and when without a CPU your system would not work. The **CPU MHz/GHz** refers to how many calculations it can do per second. If you're on a budget, it's best to see what the system requirements are for the software and try to find a CPU with Matching specifications. If you are only using the Web and MS Office, then 2.1 GHz will be more than enough for you.

Dual-core (Intel Core i*): If the label states that the machine has a dual-core, this means that the CPU is made up of two processors, which are combined to make operations perform twice as fast, but linked to act as one. Intel are currently the market leaders, so an Intel core will be the most common and the 'i' denotes the generation of chip it is – 'i7' is currently the newest generation you can get from Intel.

RAM: or 'Random Access Memory' is the temporary storage with super-fast access time to which stores your current data before writing it to your hard drive. More allows you to store more data at once without having to retrieve/save the data from the HDD which can be slower.

Hard Drive (HDD) or Solid State Drive (SSD): Hard drives are cheaper but currently are available in larger storage capacities than SSDs. Most computers will use a HDD since they are cheap and offer decent performance. However, a HDD is the slowest component in a computer. Whereas a SSD can offer much faster speeds and better performance than a conventional HDD.

RPM: stands for Revolutions Per Minute on a HDD, and is used to help determine the access time on computer hard drives, it indicates how many revolutions a computer's hard drive makes in a single minute. The higher the RPM, the faster the data will be accessed.

Operating System (OS): The OS states what version of an OS you are using. This could be Windows 7, 8 or soon 10 for Microsoft; OS X Yosemite for Mac devices.

It's important to consider when you're buying a new computer, not just what the price is, but what you are going to be using it for and the harder question, what you might use it for in the future.

What are you using your computer for?

So first thing to consider, what you are going to use this computer for? Here are some things to consider:

Where is it going to be used? Is it going to be left in an office space, where a desktop would be most suitable or are you going to need something that can travel with you, like a laptop or tablet?

How intensive is the work that you are going to be doing? If you are only intending to use the computer to write the odd email or the occasional word document, it is considerably less intensive than, for example. rendering movies. MS office only requires a CPU with a maximum speed of 1Ghz, so you wouldn't need something like a 4Ghz Core i7, but if you are doing something that will be more intensive, then the more 'Ghz' the better as it can reduce the waiting and performance times.

How much storage will you need? The amount of storage you require will affect the size of the hard drive you should look at. If, for example, you need to store extensive movie files, then you will need something bigger and choosing a computer with a bigger RPM will give you quicker access to your files, but this might not be something that you will necessarily need. It might also be worth considering if this is something that can be upgraded in the future.

You will also need to consider factors like whether you will need a **decent or dedicated graphics card or sound card** for the work you will be doing. And although most computers will now come with wireless connection, you can't necessarily assume that it will as standard, so make sure you always check.

Brands can make a big difference. Like everything else some brands are better and more trusted than others; this can also be reflected in the price. Mac products from Apple are generally more expensive, in part because you are buying into a trendy brand but also because Apple do not make low spec machines – their products are top quality. Were you to spend the same money on a Windows machine, you could buy the quality to match.

Finally, **what comes with the computer** you have in mind? If it is a desktop, is it part of a bundle, with a monitor and keyboard or would you have to get these separately? What programs does the machine come with, will it have MS office preinstalled? And for any type of device, what sort of warranty are you going to get with it?

There are a lot of deals out there, but it is important to bear in mind that they aren't necessarily as good as they might appear. Are you getting what you need for the price or paying for things that you don't actually need? Will you need to buy additional items and software, or upgrade in the future? Generally speaking, there is a reason when computers are put into 'low cost' deals, they might be clearing out old stock, or the computer itself is a lower spec than normal, which might not be suitable for a business.

The only true way to get exactly what you want from a computer, is to have it part or completely custom built. This a great option, but of course will come with its own challenges. You will need to find someone that knows what they are doing, who will be upfront about the cost you can expect and make sure that the finished product is covered by a warranty.

Buying off the shelf computers is quicker and simpler, so it is important to really think about how you are going to use your computer, using what you know you need and what you don't need as a starting point. Don't be afraid to ask serious questions before you buy, about whether that product is the right fit for you.

At Browns IT, we think it's important that technology fits around you and your company and not the other way around. If you would like any more help or advice, give us a call on 01923 439 661.