



How to choose your next Personal Computer

With all the sales going on at this time of year it is a perfect time to buy a new computer. Lets face it though with everyone speaking pixels, gigabytes and buss speed it can be a little bit of a daunting task. I am going to review some key features and brands trying to clear up some of the confusion. Lets start with **Brands** and what is important about the brand. I should emphasize we are



speaking about a Personal Computer with the assumption that the computer you are choosing is for personal or small business use, utilized for email, pictures and keeping your financial records. PC's today are assembled more then they are manufactured, meaning that a majority of the components in the computer you buy, are not made by the system manufacturers. The processor the heart of the system is made by Intel or AMD, its not just the processor but also many of the support chips are also made by these two manufacturers. The operating system software, which is the instructions for that processor are made by for the most part by Microsoft. The exception is Apple and their operating system, which has always been designed by Apple. I have used Apple systems and an assorted group of other brands of PC's, we can go back and forth on the advantages of each. Lets say for this discussion that Apple products have fewer problems over



the long haul but they also have a higher initial price. The following brands I have had some experience with Acer, Apple, Asus, Dell, Lenovo, Sony, Samsung Toshiba and HP. All of them have somewhat reasonable support, yes at peak times you may have to wait an hour or two, but unfortunately that has become the norm. In my experience there are some bright stars here Lenovo for one has used the old IBM support infrastructure out of Atlanta, their Techs are quite knowledgeable, when you need Apple I have always spoken with someone in California, once again quite knowledgeable. Dell has good support, it is over seas but the techs try to be helpful. With that said most manufacturers can remote in to your PC to help you, which has made the service experience a lot more expedient.

If this system is the heart and soul of your company or a critical component, I recommend the manufacturers extended warranty for at least 3 years. I would avoid the house brand extended contract although it can be less expensive, their access to parts for your particular brand of PC is much less efficient the original manufacturer.

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These are the top 5 manufacturers with the fewest failures with in the first 3 years.

Brand	% Of Market
HP/COMPAQ	2.50%
APPLE	8.8%
IBM/LENOVO	4.8%
ASUS	3.5%
TOSHIBA	8.4%

Another consideration is the configuration of the system, if you travel then a notebook/laptop is a must but I would never go above a 15.6 inch screen, this is also were you may want to avoid the cheaper models, the cases are made of plastic and wear quickly offering little protection. Ask for a compound fiber case



with a steel reinforced frame. If you're a stay at home user there are two options the conventional box under the desk or something Apple has been a leader on is the screen with the computer built into it. These have the advantage of fewer wires giving it a clean appearance.



Lets move on to that magical device inside of your computer, that makes a steel case and a few wires come to life, the **Microprocessor** otherwise known as the brains of your computer. The microprocessor is the largest cost component of a PC. As mentioned, two companies Intel and AMD manufacture microprocessors, of which Intel owns 80% of the market and AMD has the remaining 20%. Stay away from the slower economy microprocessors, the better Intel offerings include, the i3, i5 and i7 version 2, I typically do not recommend AMD processors, no great reason except the PC community as a whole has more experience with Intel processors.

The **Operating System** has a similar story to microprocessors; Microsoft manufactures 85% of the PC's operating systems, while Apple is a distant second at 8.8%. The latest Microsoft offering is System 7 which comes in three flavors Home Premium, which as its title says is good for the home user, Professional which has some enhanced networking and back up features and the Ultimate which has an antitheft feature and a choice of mutable languages.

The **Hard Drive (long term memory as shown)** were all your documents and pictures are stored, this is one of the places where manufacturers have made up for their lack of ability to make changes to the processors and Operating Systems. Recently I have seen many manufacturers putting 1TB drives in a basic PC, that is the



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equivalent of 12 eighty Gig drives which was the standard drive just a few years ago. With that said though if capacity is important it to your needs, present and future, the bigger the better. Another consideration, which is important, is the rotational speed of your Hard Drive, which should be no less than 7200 RPM. The faster the drive the faster it can store and retrieve your data. This is where some companies which in an effort to save money have put in bigger drives with a slower rotational speed, buyer beware. A new twist on this, is some PC's come with a solid-state drive, no rotation at all, just a large bank of flash memory similar to what is used in those thumb drives you see everyone using these days. This type of drive are extremely fast, yet typically smaller in capacity, and are much more expensive making this feature offered only in the higher end laptops.



The **Random Access Memory (RAM)** also known as the short term memory, sits between the Microprocessor and the hard Drive, the more RAM the faster your system will operate. Typically current desktops can be upgraded to 8 GB and 4 GB for Notebooks.

The **Graphics Display Card** is often integrated onto the motherboard, if you think you are going to be using the system with many graphic intensive programs you may want to consider a discreet Graphics Card which has its own on board memory. Typically the graphics memory is shared with the system memory. AMD and Intel manufacture most Graphic control chips.

The **Optical DVD Drive** is slowly becoming obsolete. With the advent of portable hard drives and thumb drives just about the only reason to have the optical drive any more is to load new programs, as a system restore method, or to watch a movie. I would try to get at least a **DVD±RW/CD-RW** for that occasion you want to make a DVD.

With regards to Applications, we often forget the programs we have on one computer may not be transferable to another, Microsoft Office or Office type products are usually not transferable and not part of the new system price. Microsoft does have a couple of lower price offerings such as Home and Student or Home and Office, when purchased with a new system they are offered at a lower price. You can also try a shareware product called Openoffice.org. **Antivirus** and **Ant-Spyware** are necessary; the first year subscription for the Antivirus can in most cases be bought with the system at an attractive price. As to which one I would stay away from the ones that promise to do everything, we all like the idea of a Swiss Army knife, but we also know that it is not the best tool for all the applications. Typically I recommend buying your Antivirus and Anti-spyware software separately.

Two additional items you want to consider are how do you back up your data out side of the computer. I suggest devices such as thumb or flash drives, which are reasonably priced and often have enough capacity for all your Data.

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Another option is to buy an external hard drive and back up all the information on your system, operating system, applications such as Office and your Data. In case of a total hard drive failure this makes it a one step process to restoring a new hard drive and getting you up and running. The second item, is a UPS (Uninterruptible Power Supply) for your desk top PC, (not required laptops) the UPS in case of a power failure, it will allow you to keep your PC running long enough to allow you to shut it down properly. In addition, most units have a built in surge suppressor.

One you get your new computer set up at home is to call upon a professional, such as myself. We will **come to your location, get you set up on the Internet, set up your email and transfer your favorites** to your new computer, as well as **your documents and pictures. Making sure you don't lose anything**, I will **create a restore disk** in case down the road you have some trouble and set up you new computer with your **old printer**, all at a reasonable price.

Steven West
West IT Solutions
32 Oakdale Road
Bradford, NH 03221
603-938-2311
Cell 603-748-4356
steven@westitsolutions.com
westitsolutions.com