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2010 INTEL PROCESSOR LINE-UP

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Intel recently released a new processor series. This new processor brings some significant improvements and is the first major desktop and laptop processor release since late 2006.

Marketing is a huge part of any new product release, so sorting through the marketing hype to figure out just what kind of processor is best, is important. Intel has dubbed their new processor line the "2010 Intel Core Processors". And, there are several flavors of this new technology.

The Core 2 Duo series, which was the current desktop processor until this release, really improved on the old Pentium series by putting two processor cores on one chip, essentially almost doubling the processing capacity. This new 2010 series of chips has expanded the cores, and added some new technology as well.

There are three new base chips to explore. First, the new Intel Core i3 processor is still a 2 core processor, but has the ability, using Hyper-Threading, to handle 2 threads per processor for a total of 4. Windows 7 takes advantage of the Hyper-Threading, so it can actually produce a faster experience for the user, making running multiple applications at once significantly faster. In addition to Hyper-Threading, the new chip has Smart Cache, which allocates cache to a processor based on need, and improves performance. Finally, systems with the new i3 chip also have HD Graphics, which improves the built-on graphics capability of most systems.

In addition to the new Core i3, Intel has released a Core i5 processor. This is where it gets a little confusing. The Core i5 processor can either have 2 or 4 cores. It has all of the same new features as the i3, but also has intelligent Turbo Boost technology which gives your computer a speed boost at times when it determines additional speed would be helpful. The laptop chip is always only 2 cores and 3MB of cache. Most desktop chips have 2 cores and 4MB of cache. However some of the desktop chips have 4 cores and 8MB of cache. If you want these enhanced chips, look for the i5-750 or i5-750S. The real difference between the i5 and the i3 is that the i5's include the Turbo Boost technology.

The final new processor series is the Core i7. The i7 has all of the features of the i3 and i5, but has enhanced speeds, cache, and core options. The laptop i7 comes with either 2 or 4 cores and varying levels of cache. The desktop version comes with 4 cores, 8 threads, and 8MB of cache. Higher end chips in this series also scale all the way up to 3.2Ghz.

One final note – Intel has also built in additional support to help IT departments remotely manage units with some of these chips. They have also

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added additional support for encryption of data and encryption of entire drives. This may not have an impact on the typical small business user, but is important for larger company IT support.

The new series of processors from Intel are significantly faster than the old series. There are many new options that ultimately improve speed. If you are shopping for a new computer you should know that not all i-Series chips are created equal. There are times when an i5 chip and an i3 chip are roughly equivalent. Laptop i-series chips are usually slower than the equivalent desktop processor, but not always. To be sure of what you are buying, and to compare units, it is important to look at more than the chip name. The four important factors are number of cores, number of threads, amount of cache, and frequency.

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How to Choose a New PC

How does one choose a new PC? What technology is important? What is the difference between the $499 PC and the $850 unit? These are common questions when trying to sort through all of the marketing hype, and you can always call CT to help you figure out what the best choice is for your situation. Here are a few guidelines:

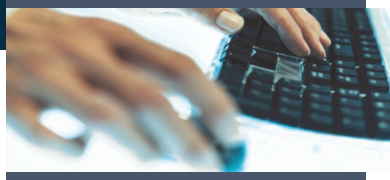
Processor – The Processor you choose is one of the keys to speed. Most business users will likely find themselves using the i5 chip. A heavy user with graphics or other demands may choose to go to the 4-core i5 or to the i7. As the 4-core units get cheaper over time, they will become the standard.

Memory – Memory is also a key to speed. This is the active area that your computer stores things for the short time that it is processing them. 4GB is the standard right now. This is the most that a standard 32-bit operating system can use. If you go to the new Windows 7 64-bit edition, and you are a heavy user, you may want more.

Hard Drive – In addition to the size of a hard drive, you should pay close attention to the speed, as it can affect your overall PC performance. A minimum of a 7200 RPM SATA drive is preferable. Capacity will vary. If you are on a network, the size is relatively unimportant because all of your data should get stored to the server anyway. Most systems start at 160GB and go up from there.

Operating System – Windows 7 is out and stable. It is time to move off Windows XP. It is over 8 years old and is not as secure as Windows 7. It is also more susceptible to spyware and viruses. When choosing which version of Windows 7, make sure you get the business version if you are attaching to a network. You will also have to choose between 32-bit or 64-bit. 32-bit will be more compatible with older applications, printers, and scanners, so for this reason, you may want to stick with it. However, it maxes out at 4GB of memory and is not as robust as the 64-bit edition. Either way, before moving forward with it business wide, it is good practice to test it with one unit and make sure your applications all work with it.

Price – If the price is too good to be true, it usually is. Most often you will find that the low priced unit sacrifices both quality and speed. Often the advertised unit has a slower chip, a slower hard drive, or slower communications between the critical components. For instance, the memory might be slower, there might be less cache, or the speed at which the motherboard communicates to the key components is slower and creates a bottleneck. Often the cheaper advertised unit may only have a one year warranty, as opposed to the business standard of three years. While you may not care about the warranty period, it is a direct reflection on quality. Usually the manufacturer won't warranty it for the three year period for a reason.



SOFTWARE
Monthly Picks

Finding just the right file, when you really need it can be challenging at times. Windows Search can help you instantly find the file, email, or attachment you need. You can even index encrypted files. Whether you are running Windows 7, Windows Vista or Windows XP, Windows Search can help you spend less time looking for the data you need.

EYE ON IT
Cool Tools

The Olympus DS-30 Digital Voice Recorder not only allows you to capture stereo sound from important meetings, it allows you to download and create podcasts for listening to at a later time. The DS-30 offers up to 68 hours of recording time with its 256MB of internal memory. The player allows you to set up to 5 voice folders and can save up to 200 messages. Easily transfer the files to your computer with a USB cable. It uses standard AA batteries and has an estimated battery life of 30 hours.