New Computer Recommendations

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These recommendations are based on 10+ years of experience installing and repairing computers at Portable CIO. The brands and configurations we recommend are based on what we know will best serve our customers most reliably. You may have had great experience with one computer or another, and that may influence your purchase decisions. But while HP, Toshiba, Sony, Acer, etc., make their own compelling case, we judge systems based on the overall reliability and serviceability we've observed across thousands of repairs over a decade. The low sticker price does not represent the total cost of ownership you'll have down the road. Manufacturers regularly sell under-configured computers for a bargain, just to move boxes, and we want you to avoid buying that kind of a mistake. All computers are not created equally, and our guidance is to ensure you get the best value for your money, the best reliability for the life of the system. Computers have a 3-4 year lifespan in a commercial setting, and 4-5 years in a home setting.

1. **Manufacturer:** For PC's, we recommend Dell and IBM/Lenovo computer systems. For businesses, we prefer the Dell Optiplex and Precision desktop lines, and their Latitude and Precision laptops. For home, the Dell Inspiron, Dimension, and Studio lines are best. The best place to purchase a Dell is from Costco.com (their online store). Because of their size, they are able to purchase and sell computers that are better configured and cost less, than we can get directly from Dell with our "partner" status. Their prices are very competitive. Also, when buying through Costco, they double the standard Dell one year warranty to two years, so from the start you are getting an additional year of warranty would cost you over $100 if you bought it separately. Lenovo laptops (formerly IBM, but now a Taiwanese company) have been outstanding, although sometimes more premium-priced. They have many models to choose from, and they can be found at http://www.lenovo.com/us.
2. **Operating System:** Windows 8 had a successful release in October of 2012 and we heartily endorse it. The vast majority of machines now come with a 64-bit version of the operating system, unless specifically stated to come as 32-bit. The 64-bit version is a faster operating system, and enables you to use your memory more effectively. The older 32-bit version of XP and Windows 7 has a 3.5gb limit. The 64-bit version has no such limit, enabling computers to run better with sophisticated software. If you are using any special software other than the typical Microsoft Office products, you should visit your software manufacturer's website and Microsoft's website to make sure your software is compatible with Windows 8 before proceeding. www.microsoft.com/compatibility
3. **What about Macintosh?**: Macintosh computers are very popular, and no recommendation would be complete without mentioning them. Most of our Macintosh customers prefer the MacBook Pro and the big-screen iMac's. The MacBook Pro ranges from a low of $1199 for a 13" notebook to a high of $2799 for the 15" laptop. The iMacs range in price from a 21.5" model for $1299, to a 27" model for $1999. Remember that if you plan to convert to the Macintosh, you'll need to repurchase *all of your software*, and ensure that anything you do out of the ordinary will be compatible with the new platform. If you want the best of both worlds, consider getting a Mac and then running "Parallels" or "VMWare Fusion" with Windows 7 in a virtual machine. This lets you run a PC within your Mac, so that you can still use software that may be proprietary to the PC world, while enjoying the other features the Macintosh has to offer. Please be aware that if you intend to move to a Mac, that they require AntiVirus software just like PC's, as they are starting to be targeted far more. The AntiVirus product we recommend to Macintosh users is a free product called "Sophos Anti-Virus for Mac Home Edition".

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4. **iPads, Android Tablets:** Apple reinvented computing when they introduced the iPad in April, 2010. Since then, every major manufacturer has introduced their own version of tablet computing. The introduction of the iPad, together with the maturation of web-based services ("Cloud Computing"), has created an environment that allows many people to leave their computers at home, and use the tablet instead. A recent addition to the world of tablet computing is the Microsoft Surface, some versions of which run a full version of the Windows 8 operating system, blurring the line between tablet and laptop, but things are too early to tell how successful/useful they will be. If you would like some guidance on which way to go, we can discuss the features you value, and help you decide on the right device for your situation. Bottom line? You'll love using one.
5. **Processor:** For general home and office use, we recommend the following processors: AMD Phenom II X4, AMD Phenom II X6, AMD FX, Intel i5 and Intel i7. Whichever processor you purchase, we recommend the fastest speed available that you can afford, measured in gigahertz (Ghz) (i.e., 3.4ghz is faster than 2.5ghz). If you plan to do video or CAD work, do not skimp on the processor. Video processing takes an enormous amount of computing power, and the more you give it the better your experience will be. The speed of your processor is also a factor in how long your computer will last. A faster computer will last longer as software gets increasingly complex over time, which requires more processor resources. A slower computer will run out of resources sooner.
6. **Memory:** RAM is inexpensive and extremely important as it directly affects how well your computer will function. For your new 64-bit operating system, purchase a minimum of 8gb of RAM, more if you have specialized needs such as high-end drafting, video editing or code compiling. RAM is the cheapest and most effective upgrade you can add.
7. **CD / DVD / Blu-Ray:** CD/DVD drives are usually a $25 add-on, while Blu-Ray Players tend to be on the more expensive side. It's good to have the ability to burn discs and also to watch movies. A DVD/RW drive has the capability of reading or burning CD's or DVD's. Getting a Blu-Ray player is a great idea if you plan on watching movies on your system, although if you intend to burn Blu-Rays, be aware that burners are more expensive than readers and that blank media is still quite expensive and only those with Blu-Ray drives in their computers will be able to read the disks.
8. **Floppy Disk Drive:** Obsolete. In its place, you often have the option of buying a memory-card reader instead; this can be a convenient addition if you enjoy digital photography.
9. **Keyboard and Mouse:** Choose whatever keyboard you think serves your purposes. The choices are basic and multimedia, wired and wireless, straight and split, with more buttons and controls available on the multimedia keyboard. Which mice and keyboards you choose to buy is personal choice based on features, color, touch/feel. Also, be aware that while wireless mice and keyboards are generally convenient, they will be less reliable and will occasionally need to be charged, have batteries replaced, or require the wireless connection to be re-established for the devices to work.
10. **Hard Drive:** Common sizes available in desktops are 750Gb, 1Tb and 2Tb (Terabyte = 1000 gigabytes). Laptops are usually configured with 320Gb, 500Gb, and 750Gb. Remember, if you store it, you need to have a plan to back it up. When trying to choose a hardisk size, realize that you probably have more data than you think; you must take into account your digital photos, your music library (iTunes?), downloaded videos and other documents you may have accumulated. Hardisks lose efficiency when they become approximately ½ full, so if you think you'll have 250gb of data, get a minimum 500gb disk.

Don't plan on using every last bit of space on a hardisk, because when a drive is that full, the system runs horribly slow and is working harder and longer to retrieve information, and this can often lead to premature disk failure.

11. **SSD v. Regular Hardisk:** For laptops and desktops with high disk usage and large files, we recommend moving to the new solid-state storage. These are storage devices that have been made from non-volatile RAM chips, and don't contain the spinning platter of a traditional hardisk. They're a little more expensive, but they are several times faster than a hardisk. We have found them to be extremely useful in laptops, because they consume less energy and produce less heat, and they are so much faster than a standard hardisk. They can't 'crash' due to vibration, either. In desktops, we're seeing more people move to SSD's to boot and run their programs with excellent results.
12. **Hard Drive RAID:** A lot of computers are now available with a RAID 1 setup. This is where you have two hardisks that both get written simultaneously. The theory is that if one goes bad, you can run on the other until you get the first one replaced. If you are in a high-availability environment, we recommend RAID arrangements as they can be the difference between being completely down for a couple of days, or being able to continue to work. The additional cost is usually only a couple hundred dollars, which is minor when compared to the cost of unplanned downtime. For most home environments we would simply recommend an offsite backup for your data, such as Carbonite or CrashPlan, as RAID arrays can sometimes be a larger investment with more expensive upkeep, rather than just being without a computer for a few days.
13. **Wireless Card:** Most desktop computers are coming with wireless cards built in, but they are not standard; double check that your machine comes with one if it's a necessity. All laptop computers now come with wired and wireless networking built-in.
14. **Video Card:** Unless you play intense PC-based games, 256mb to 512mb on your video card is ample. Consider whether you want dual-outputs for running two displays, as it's a real productivity enhancement. DVI connections produce crisper images than VGA. If you're using an existing monitor, make sure the card you buy has the right connector for the monitor you own. DVI is long and rectangular with 3 rows of very small pins in straight rows, and VGA is a smaller, oblong 15-pin connector. Many computers now come with the new convenient HDMI connectors, which can be used to connect your PC directly to the HDMI input on your television. A newer type of video connecter is called DP or Display Port, which looks very similar to an HDMI connection, but has one of the sides squared-off, rather than both being angled. Again, just ensure that whatever monitor you're connecting to has the appropriate connections to be able to work with your new computer.
15. **Monitor:** If you need a replacement monitor, buying it with your computer package often helps to save on costs. Costco has great deals on their monitors. Bigger is better, making it easier to see everything and the computer more pleasant to use. For desktop computers, 23-24" monitors can be obtained in the $180 range. It is well worth the expense, and an upgrade you will definitely not regret.
16. **Warranty.** All the computers come with a limited one-year warranty, or two years if you buy through Costco. Extending this, including the option to have next-day onsite help from a Dell representative is up to you and your budget. While we never recommend purchasing a local retail store warranty for your computer equipment, our customers have received good value from extended Dell warranties, so it is up to you and what best fits your needs.

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Notes

- When you get your configuration, email it to "helpdesk@theportablecio.com" for technical review. We'll point out anything that looks awry before you commit to the purchase.
- Office software: If you use Microsoft Office you must have your install CD's and license-key to reinstall, or you must purchase a new copy. An alternative is to use LibreOffice software (www.libreoffice.org) that is compatible with Microsoft Office and available free of charge. If you download LibreOffice, just go into the settings to tell it to Open and Save files in the Microsoft document formats (xlsx, docx, pptx) and you will be compatible with others who are using regular Microsoft Office.
- Antivirus: We recommend and carry AVG Antivirus ($60). We do not recommend purchasing a bundled copy of Norton, McAfee, Trend Micro or BitDefender Antivirus, or products including the words "Internet Security" when you purchase your computer from a manufacturer.
- Anti-Malware: We recommend and carry the Malwarebytes Anti-Malware package ($35). This product compliments the AVG software, and adds another layer of protection against this new category of irritant which has become so prevalent. Home licenses are permanent, while business licenses last one year.
- Backups: We strongly recommend backing up your system over the internet with a service like CrashPlan or Carbonite. Each have different billing structures that range from unlimited data on multiple machines, to limited data for a single machine, review the plans and choose which best fits you. This should be considered mandatory software.
- Have your new system shipped directly to us for the preparation and the loading of data from your old system. Be sure to let us know its coming! Once the new system is configured, a Portable CIO technician will deliver and install your computer in your home or office, and ensure you're completely satisfied with your new system. Our shipping address:

Portable CIO, 172 Via Serena, Alamo, CA 94507

Remember to drop us a note at helpdesk@theportablecio.com to let us know it's coming!