CONSUMER CLASS EQUIPMENT VS BUSINESS CLASS EQUIPMENT

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Is it time to outfit or update your practice with computer equipment? The challenge can be in knowing what you need, when to upgrade your equipment and what to consider during the purchasing process. It is no longer a one-size-fits-all world. Considerations must now include security requirements, practical necessities and value. Understanding the benefits of purchasing business class equipment verses consumer class equipment can help you make an informed decision.

For the purposes of this article I am defining equipment as (Desktops, Laptops, Touch Screen or 2-in-1 Laptops, Printers, UPS's, Switches, Access Points, Firewalls, etc.) The single most important information I can offer you is when it comes to equipment for your practice—if you can purchase it by walking into a Big Box retailer, such as BestBuy, Staples, Office Depot, Office Max, Walmart, Target OR any of the warehouse Clubs then it is NOT business class equipment. *

Below I will outline each category of business class equipment:

Computers

The three major vendors for business class computers include Dell, Hewlett-Packard (HP) and Lenovo with Dell being the primary source. International Networking, Inc., (INI) has been selling business class computer equipment since 1995 and is authorized to sell all three vendors. In the 30 plus years I have worked in the IT industry all three major vendors have strict requirements on becoming an authorized reseller and selling their business products, and this still remains true today. None of the major three vendors want their value-added resellers to deal with inferior products nor are we allowed to purchase consumer class equipment for distribution.

Dell computers offer both consumer line computers (Vostro and Inspiron) and business class computers (Optiplex and Latitude). At first glance these similarly-featured computers look comparable and it can be tempting to go with the less expensive consumer models. However, upfront cost is only a small part of the Total Cost of Ownership (TCO). INI almost exclusively sells

Dell business class computers and here are a few reasons why we feel business class computers are worth the extra money.

1. Warranty and Tech Support
Consumer computers typically come with standard warranties that are anywhere from 90 days up to a year. Business class computers generally offer a 3-year warranty range with optional coverage up to 5 years. It stands to reason that if the manufacturer offers a longer standard warranty on business class computers they must expect these products to fail less often. Consumer tech support has longer hold times, shorter hours of operation and are more likely staffed by workers in an international facility. If you purchase a Dell business class computer with Pro Support can expect US based tech support, 24/7.

2. Lower Failure Rates
The components in business class systems are higher quality than found in their consumer counterparts. The expected lifetime of a business class computer is 5-7 years, particularly if you purchase a higher end model with Core-i7, 16GB of RAM and a solid-state drive (SSD). As mentioned, the quality components found in a consumer class system would never be as high and the expected life will be significantly less and are generally thought of as disposable where business models undergo rigorous testing and are a superior quality. Additionally, parts are available for repairs a longer product lifetime.

3. Have it Your Way
Business computer buyers tend to desire standardized configurations for their companies and computer manufacturers offer more customization options for their business class systems. The quick turnover in consumer models means you will have a hard time standardizing anything after purchase.

Business class computers come standard with Windows Professional which has features that would be especially desirable for a medical practice. The two main differences between the home and professional versions of Windows is the Professional version allows you to join a Windows domain and offers the option of Remote Desktop. Why is joining a Window domain important you ask? A Windows domain will allow you to enforce security configurations, access control and enable the use of audit controls and this is especially important for HIPPA compliance. With a business class model, you can choose to downgrade from the newest Operating System (OS) to an earlier version in order to maintain your systems standards. This could be important if you are running software that is not compatible with Windows 10 Pro. But be forewarned, all computers running Windows 7 on January 14, 2020, will no longer receive critical updates from Microsoft. After this date a Windows 7 computer will not be properly patched and seen as unacceptable for use in a medical practice, just as Windows XP is today.

4. Less Bloatware
Have you ever purchased a consumer class computer only to find dozens of unwanted soliciting software installed right out of box? We refer to this as bloatware. This software is virtually useless and ends up on these consumer class computers as the manufacturers are paid to install it by software vendors. Bloatware can significantly slow down a computer and generally offers no value. On the other hand, a Dell business class computer does not come with bloatware so you don't have to pay your IT guy to remove it.

Servers
Most medical practices will benefit by having one or more Windows Servers in their environment. A Server can serve many roles but almost always provide the following services:

Active Directory (security, access control, audit controls, group policies, etc.)

- **DNS** (computer name resolution that integrates with Active Directory)
- **DHCP** (assigns IP addresses to devices on your network)
- **File Server** (allows you to store files in a central location that are shared as needed and can be backed up locally and to the Cloud)
- **Print Server** (allows you to setup printers on the server and automatically install them on connected computers)

Some practices can benefit from extended functionality such as:

- **E-Mail Server**
- **SQL Server**
- **Remote Desktop Services or RDS** (gives you the capability to virtualize desktops on the server and access from remote devices)
- **PM and/or EHR Programs**

Every business has different computer equipment requirements and should be evaluated by a reputable IT company for the right solution.

Firewalls
Having a business class firewall is imperative for the security and privacy of the connected equipment in your office. Most offices use a Cisco or SonicWall Firewall and they meet or exceed HIPAA requirements when configured correctly. Both are excellent but my preference is the SonicWall. I also recommend when purchasing a SonicWall the purchase of the SonicWall CGSS or Comprehensive Gateway Security Suite (CGSS). CGSS provides you with a single integrated bundle of security technologies designed to stop known threats. This allows you to secure your network at the gateway against threats such as intrusions, viruses, spyware, worms, trojans, adware, malware, keyloggers, malicious mobile code, and other dangerous applications. It also provides you with advanced content filtering.

Access Points
If you plan to use more wireless devices in your practice it will be important that a secure and reliable access point(s) (AP) be installed. As with all other computer equipment we are looking for the ability to enforce security, access control and enable audit controls. Cisco is and has been the industry leader for business class access points for many years. They now offer the Meraki line which offers Cloud based control of your AP. If your building and/or office configuration requires managing multiple AP's the Meraki is a terrific solution.

Network Switches
Most offices will require a network switch to physically connect all hard-wired devices to the network. Business class switches come in configurations from 8 ports and up. The actual model features that you require will be based on your specific needs.

UPS's
Every desktop computer should be protected by a Uninterruptable Power Supply (UPS) battery backup. It may surprise you to know that using a UPS can actually extend the life of the computer equipment as well as, preserve data in many cases. A desktop computer manufactured in the last 10 years has an Active PFC power supply and requires a Pure Sine Wave UPS. Servers also require a UPS but at a much higher capacity. We at INI, recommend to our customers they have an equipment closet that houses the internet provider, firewall, switch or switches, power for Access Points, phone system, etc. And there should be a network UPS installed with ample capacity to support these devices. During a power outage, you will still be able to use your phone system and maintain your internet connection. Just be sure to figure in needed runtime when making your UPS purchase. We do not however; recommend you purchase a UPS from a Big Box Retailer or Membership Club because they do not carry a Pure Sine Wave UPS.

Remember that you and your employees will be using the computer equipment you purchase every day, all day long. Make sure what you purchase does what you need it to do. It's easy to get caught up in the line-item expense but downtime caused by computer equipment can be costly and severe. At INI we believe a medical practice should have reliable and secure equipment with appropriate safeguards in place. We are experts who know your business and industry. If you find that you could use help to move from where you are to where you want to be we can help you get there.

The information contained in this article applies only to Window's based computers. Modern Apple computers are considered business class computers, however; Apple makes up less than 5% of the desktop/laptop computer market.

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