Technology: When to buy, when to wait

By Toby Buckalew, CIO, OrthoSynetics

During the past several years, technology products have become commonplace in our businesses. People utilize technology to save time, become organized, improve communication, automate tasks and reduce costs (among other things). However, technology requires periodic updates and replacements over time. Not doing so can result in increased costs in repairs, lost time, lost efficiencies and other hidden costs.

The key is to understand when to make the decision to buy and when to hold off on that new purchase.

When investing in technology products for your business — be they computers, printers, intra-oral plates or a new digital panoramic X-Ray — it is important to understand the technology life cycle. However, every technology item you purchase has a finite life. The specific lifespan of an item will vary upon a number of factors — making it impossible to have a single timeline for every item.

Every item does adhere to the same lifecycle: new, performing adequately, diminishing performance and hampering performance. The reasons for the declining capability stem from advances in software that tax hardware, periodic hardware failure, intermittent malfunctions, changing technologies and mechanical wear.

Understanding the point in the technology life cycle at which you wish to replace an item is the basis of creating a technology acquisition plan. Many take a thrifty approach, in which they do not replace hardware until it hampers business. This approach has hidden costs in lost productivity, increased support costs/times and related expenses that — in many cases — produce a net result that actually costs more than replacing the aging equipment.

A cutting-edge approach for replacing technology dictates replacement of equipment when it is performing adequately but new equipment hits the market that may have better performance. This strategy replaces equipment on a rapid schedule. While this approach keeps technology up-to-date and new, the increased cost of constant replacement is not normally necessary and adds little benefit to the business. Additionally, being on the cutting edge of new software/hardware may not always be in the best interest of the business. Holding off for a few months (or more) on brand new technology usually benefits the business as it allows others to experience the issues all ways involved with widespread release of new technology.

The sweet spot in technology acquisition is when technology begins diminishing performance. This is identifiable as a point in which operations, which were performing smoothly and with few issues and only an occasional hiccup, now are a constant annoyance — affecting business. The other factor that identifies this position is simple age. Equipment does wear out. The moving parts in computers deteriorate (such as the cooling fans on processors and power supplies). Silicone is sensitive to heat and wears out internally, leading to failure (think of all those integrated circuits and processing chips in the electronics and computers in the office). Intra-oral scanners can become moisture saturated, or (if cabled) inadvertent bites by patients can damage wires in the cord (even if not visible externally). The core strategy is to extend the use of your technology to achieve maximum return on your investment and replace it before it begins to hamper business operations.

For most technology elements in your business, three to five years is the point in which they reach the diminishing performance point in the life cycle. For other items, such as a digital pan/ceph, it may be eight years or longer — especially if serviced regularly. The difference between a five-year cycle and a three-year cycle could be quite small on the initial purchase price of the equipment. For example, today’s computers are powerhouses compared to just a few years ago. Replacing a computer today with something above the basic model will easily ensure it handles the majority of your needs in five years. However, when that five-year mark arrives, you may want to consider a refresh of the technology — even if it appears to be working well.

Outside factors may dictate the point at which you refresh technology. For example, in April 2014, Microsoft ends support for Windows XP. This means there will no longer be any security updates or patches for computers running Windows XP. This is an important consideration as it means Windows XP becomes non-HIPAA compliant at that time, meaning it is time to upgrade those old computers.

Another item to consider when purchasing new technology is the warranty or service agreement. Warranties and service agreements vary dramatically from supplier to supplier. There are three topics to consider when looking at warranties for new products: cost of the warranty vs. cost of the replacing the item, cost of repair vs. cost of the warranty, criticality of the item to your business. For expensive investments, obtaining a service contract/warranty may be financially beneficial and ensure the extended life of the item.

While it is common for businesses to replace technology upon its failure, the difficulties and costs involved create an impact to business operations. Understanding the technology life cycle and strategically planning for updating your technology reduces the instances and associated costs of failures and improves overall operations.

About the author

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