

COMPUTERWORLD Hardware



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Used IT gear: How to get good stuff cheap and avoid the lemons

Buying used IT hardware can save big bucks. Here's how to kick the tires.

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June 22, 2009 When Cox Ohio Media needed to buy 600 laptops, it decided to buy used gear -- and saved about 70% of the cost of going with new units.

Brand-new laptops would have cost about \$600,000, says Catherine Bates, asset and configuration manager at Cox Enterprises Inc., the parent company of Cox Ohio in Dayton. But Cox saved about \$420,000 by purchasing used Dell systems from Redemtech Inc. in Columbus, Ohio.

Cox is rolling out the laptops in the early stage of what's planned to be a yearlong implementation. The Dell machines are less than two years old, and so far everything is working well, Bates says.

"One of the benefits Redemtech offers is the diagnostic and grading process that they put their equipment

Quick Tips

Before buying used hardware, make sure of the following:

- Replacement parts and support are available.
- You get a warranty.
- The hard drive is cleaned of any previous owner's data.
- You investigate the vendor.
- You compare the difference in costs between refurbished and new, then weigh the risks based on the actual savings.

through," Bates says. "We knew we were getting grade-A machines, which means that there are no hardware defects or cosmetic issues with the equipment. The equipment functions just as if we had purchased it new."

The laptops included a 90-day warranty, she says. This is on par with what some new laptops come with, though there are exceptions. New Dell Vostro laptops, for instance, have limited warranties of up to a year, but other Dell hardware warranties vary in length from 90 days to four years. Hewlett-Packard Co.'s Mini 1000 XP laptop comes with a one-year warranty.

Cox Ohio is by no means alone in considering used IT equipment instead of buying new, and a number of companies are taking the lead in servicing this growth market. HP's Renew program and companies like Redemtech, Canvas Systems LLC and Frontier Computer Corp. typically buy used equipment from user organizations that are refreshing their systems. The vendors then perform diagnostics, grade the gear and offer it to buyers at a much lower price than what it would cost new. Sometimes these vendors even get their hands on IT equipment that was returned but never used by customers who ordered incorrectly or decided to go another route.

Pros & Cons

Thinking about buying used IT hardware? Consider these factors:

Pros

- It can offer significant cost savings.

- It can supplement legacy equipment.
- Used-gear vendors provide good support.
- Buying used doubles as a green-IT initiative

Cons

- It's usually less energy-efficient.
- It may have unseen wear.
- It can become obsolete quickly.
- It may lack documentation and mounting accessories.
- It lacks the original manufacturer's warranty.

Forrester Research Inc. analyst Doug Washburn says that IT buyers should consider the different flavors of used equipment, since performance and cost will likely vary. "Remanufactured," "refurbished" and "reconditioned" are terms that "refer to a device that goes through a stringent visual and technical refurbishment process," he says. In contrast, a machine that's just described as "used" isn't guaranteed to have gone through that process.

Washburn explains that in this economy, when capital expenditure dollars are hard to come by, organizations are looking to preserve funds wherever they can. Plus, the reuse option does double-duty by [fulfilling "green IT" goals](#), which are increasingly part of the agendas at many companies, he says.

Washburn doesn't have hard data about the number of customers buying used vs. new, but he says demand for refabbed gear is high enough that supply is starting to become an issue. "People are extending the life cycle of their assets and are not refreshing as quickly" to conserve capital dollars, so there are fewer used machines on the market, he explains.

Big Servers, Too

Laptops aren't the only equipment that companies are looking at buying used. Duc Tran, manager of the Vertical Motion Simulator Lab at NASA, says he has bought used computers that are compatible with other lab systems that are no longer available new.

Specifically, NASA has purchased used DEC AlphaServer ES45s to upgrade and to continue supporting the lab's existing DEC servers.

If the used equipment weren't available, his group would have to spend time and money developing a new system, Tran says, noting that such an endeavor "would be fairly expensive."

The IT department at Georgia Southern University purchased x86 and Unix servers; NetApp Fibre Channel storage gear; Cisco switches, routers and hubs; and other networking equipment -- all from Canvas Systems, a supplier of used IT equipment in Norcross, Ga.

Timur Mirzoev, assistant professor of IT at Georgia Southern, says the school hasn't had any problems with the used equipment. Moreover, it has proved to be a great teaching aide, because students have handled the installation, configuration and management of the used gear.

"I think this is the only way we could afford to teach advanced technology with real, hands-on experience," says Mirzoev. "In addition to reusing existing equipment, we are also supporting the [greener global environment](#). It's the best choice, considering the economy in this state."

Forrester's Washburn adds that the performance of used gear isn't necessarily any different than that of new systems. For example, he says, HP's Renew program remanufactures equipment to be in "same as new" condition and touts equal performance at a 15% to 40% discount compared to new. And in fact, the refabbed equipment may have never actually been used because of customer returns, canceled orders and the like.

Tweet Deals

Good deals on used hardware can be had at bankruptcy auctions, on eBay and even on Twitter.

PC maker Dell Inc. has been using Twitter since June 2007 to post news about clearance sales and discounts and teasers for refurbished products. So far, according to Dell's blog, the tweets have yielded \$2 million in direct sales for the [Dell Outlet](#). Another \$1 million in sales has come indirectly, from customers who entered Dell's Web site via Twitter but then bought new equipment.

While the total of \$3 million in sales may be a drop in the bucket for Dell's \$61 billion business, it's considered a major success story in the nascent world of Twitter marketing.

Steve Hawn, president and CEO of used-gear supplier Frontier Computer in Traverse City, Mich., says customers that need to upgrade their software in a hurry often turn to used hardware to ease the monetary

pain. A new version of an application often requires more hardware horsepower, and going with used equipment can cut the cost of that more powerful hardware by up to 90%, he says.

Robert Houghton, president of Redemtech, says that one customer that bought used gear saved \$9.2 million during a two-year period. The customer, whom Houghton declined to name, bought Cisco switches and routers, desktops, laptops, laser printers, and Intel and Unix servers, among other things.

Caveat Emptor

But the strategy is not without risk. Steve Brasen, an analyst at Enterprise Management Associates Inc. in Boulder, Colo., says the primary challenges of using refurbished equipment are ensuring reliability and dealing with technology obsolescence.

"Any piece of hardware that was actively used previously is going to show signs of wear," Brasen says. "Even 'refurbished' units, which have typically had replaced or repaired damaged components, have been subjected to stress and therefore contain unseen wear."

He adds that even though there's "no question" that used equipment is less expensive, he recommends that companies still follow their standard decision-making processes before making a purchase.

"Any hardware evaluation [for either new or used equipment] should factor in the total life-cycle cost with the expected return on investment," Brasen suggests.

Servers and desktop computers can be expected to have a usable life span of only about three to six years, he says. After that, they become difficult to support as they are replaced by the next generation of systems architectures. Telephony and network systems have a longer shelf life, but customers should always ensure that replacement parts and support are available before committing to older technology.

If you're buying directly from the previous user and not going through a refurbishing company, you should take the same steps upon receiving the new equipment that you would take if you were disposing of hardware, namely performing a [secure wipe of the hard disk](#) and removing any external media (CDs, DVDs and so on). There are a number of commercial and open-source utilities available for wiping a hard drive, including Iolo Technologies LLC's DriveScrubber, Skylark Utilities' Wipe It 3.01, and The Mireth Technology Corp.'s ShredIt 5.0

Despite these cautions, "the pros far outweigh the cons," says William Sauter, IT director at Beaver Island Community School in Beaver Island, Mich. "The only con that comes to mind [is] the lack of documentation in the box and the mounting accessories." But those challenges can be overcome by working with a top-notch used-gear supplier, Sauter adds.

He has primarily purchased used HP/Compaq gear, including an HP MSL5000 tape library, four ProCurve Gigabit Ethernet switches and a disk-to-disk backup system that includes a ProLiant DL360. All of this gear was purchased for less than the cost of Beaver Island's current tape library, Sauter says. The switches carry a lifetime next-day replacement warranty from HP, even though Sauter bought the switches from Frontier Computer.

Among the suggestions from Forrester's Washburn: Ensure that the products you're purchasing have warranties that last as long as possible -- at least 120 days -- with free parts and labor included from in-house technicians. "And before entering into a new sourcing relationship, check with your existing vendors, since they might already sell used equipment. For example, HP and Dell both offer used options," Washburn says.

"Our best advice," says Brasen, "is to treat used or refurbished IT equipment like a used-car purchase -- kick the tires and get the dealer to pony up for an extended warranty. Value in purchasing this equipment can be achieved, but only if you're certain that you're not going to get stuck with a lemon."

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