

Computer afterlife
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The solution: Use a recycler that disposes of every part of every computer in an environmentally sound way, while protecting confidential information.

Every computer has to die someday.

That inevitability creates an enormous problem in waste management - not to mention what to do with hard drives, the often highly sensitive and proprietary data on them and various hazardous metals.

Between 1997 and 2007, about 500 million personal computers in the United States will become obsolete, according to the National Recycling Coalition.

That's nearly two for every man, woman and child in this nation of 293 million people.

Many companies have old computers and monitors piled up in basements and storage rooms. Their information technology managers may not know what to do with the equipment or be aware of the laws governing disposal.

"This is a lurking problem that will be difficult in the future," said Sen. Jim Talent, R-Mo., who has introduced a bill in Congress to stimulate computer recycling. "We just don't have anything like a system for recycling them."

Computer parts are not necessarily harmful to the environment, if properly handled and recycled.

The biggest environmental threat is the monitor, or screen, with its cathode ray tube and the toxic lead it contains.

All of those facts became apparent when Lee Blackmore, director of information technology for Stifel, Nicolaus & Co. wanted to get rid of 1,500 old computers in storage.

"I was looking for a solution," said Blackmore, who turned to EPC, a St. Charles company that rehabs computers, laptops and printers, as well as "de-manufacturing" those beyond repair. EPC (www.csileasing.com/returns_facility.html) bills itself as the area's largest computer recycler.

One thing Blackmore didn't want: to turn over the company's computers to a guy with a pickup, who might throw them into a roadside dump.

They would be easy to trace back to his company, and that could cause many legal problems, he said.

Disposal of computers is regulated by federal and state environmental laws, as well as the federal Fair and Accurate Credit Transactions Act and Sarbanes-Oxley Act. The latter two govern financial and consumer transactions on computers.

Blackmore also knew he couldn't send the computers to a landfill, because federal law forbids businesses to do that. He also knew the computers might contain important details about the brokerage firm's clients.

"Stifel's asset tag would still be on there," he said. "Also the client information. You may think it's gone, but it's still in there. You could get a geeky guy who would go into it and get it."

Companies are ultimately responsible for disposal of their wastes, including outmoded computers, said Mike Menneke, a waste enforcement officer with the Missouri Department of Natural Resources. "When a business generates solid wastes, it's the business' responsibility to determine the waste and manage it properly."

However, he added, households are exempt from laws governing the disposal of hazardous wastes in computers.

EPC's core business is refurbishing and reselling computers, including those owned by its parent company, CSI Leasing Inc. of Creve Coeur, after the equipment comes off lease.

"It's more of a total solution" to take care of end-of-life computers that no longer have value, said Keith Ham, receiving and audit manager of EPC's E-Scrap Processing Center at 4025 Lakefront Court in Earth City.

The E-Scrap business model is simple: EPC receives computers from its processing center in St. Charles or directly from clients. Then, EPC technicians go over each piece to determine if it still has value.

If not, it's broken down into basic parts: plastic case, keyboard, logic boards, wires. All can be bundled and shipped out to recyclers.

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For instance, plastic is crushed into 1,000-pound blocks. Dan Fuller, EPC's president and founder, said it costs about 8 cents a pound to process, and he can sell a pound of plastic for 9 cents.

"We do wrap and pack each shipment," he said. "We protect the chain of custody."

The cathode ray tubes, which contain lead and therefore are banned from landfills, are shipped to Doe Run Co.'s lead recycling center in Boss, Mo., one of the largest in the nation.

"Everything leaves here in processed form as a raw feedstock" for manufacturing, said Kenn Ritchey, EPC's vice president.

Penny by penny

Fuller said the operation in Earth City "is a high-tech junkyard." He started computer reprocessing in his home in 1984. Today, EPC breaks down about 20,000 personal computers, laptops, printers and monitors a month.

Operating costs are a critical factor in this business, which can be labor-intensive if each computer is tested and evaluated before being destroyed or reprocessed.

"Most of our competitors send their computers offshore to China," Fuller said. "They have few labor costs and environmental regulations."

EPC's policy is that none of the computers and peripherals the company processes go into landfills or overseas.

"You make a lot of money on pennies," Fuller said, referring to the need to process a high volume.

Other computer de-manufacturers agree.

"If you handle computer processing in the right manner, it's not a money maker," said Bill Briggs, owner of Laclede Computer Trading Co., 9405 Gravois in the Affton community.

"If you sell it overseas, you can make good money," Briggs said. "But keeping everything stateside and doing the right thing, you can't make much money. But stateside is the way

to go."

Darrel Schmidt, owner of Dcal Business Solutions, 299 East Avenue in Webster Groves, thinks of the computers he's destroyed as commodities.

"Everything in a computer is a commodity," he said. "If it's a negative commodity, you charge up front. If it's a positive commodity, you can take it for free."

Using that reasoning, Schmidt, Briggs and some other local reprocessors charge \$8 to \$15 to accept each monitor. They, too, ship the monitors to Doe Run's lead recycling center.

Creating incentives

Reprocessors such as EPC are pinning their hopes on a bill introduced earlier this year by Talent and Sen. Ron Wyden, D-Ore.

The legislation would set up a national incentive for recycling by allowing a one-time, \$15 federal tax credit for owners to dispose of computers and television sets with a recycler who observes the law.

It also would allow certified computer scrappers to earn an \$8 tax credit for each computer or TV set broken down and handled under the right conditions, provided they handled at least 5,000 units a year.

The U.S. Environmental Protection Agency estimates that electronics waste makes up 40 percent of the lead and 70 percent of the heavy metals in landfills.

The Talent-Wyden bill, which is in committee, would help to divert computers and other electronics waste to proper recycling facilities.

"This is for working down the problem," Talent said.

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