## **True Crime**

## Eric Lundgren, 'e-waste' recycling innovator, faces prison for trying to extend life span of PCs

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By Tom Jackman

Eric Lundgren is obsessed with recycling electronics.

He built an electric car out of recycled parts that far outdistanced a Tesla in a test. He launched what he thinks is the first "electronic hybrid recycling" facility in the United States, which turns discarded cellphones and other electronics into functional devices, slowing the stream of harmful chemicals and metals into landfills and the environment. His California-based company processes more than 41 million pounds of e-waste each year and counts IBM, Motorola and Sprint among its clients.

But an idea Lundgren had to prolong the life of personal computers could land him in prison.

Prosecutors said the 33-year-old ripped off Microsoft by manufacturing 28,000 counterfeit discs with the company's Windows operating system on them. He was convicted of conspiracy and copyright infringement, which brought a 15-month prison sentence and a \$50,000 fine.

In a rare move though, a federal appeals court has granted an emergency stay of the sentence, giving Lundgren another chance to make his argument that the whole thing was a misunderstanding. Lundgren does not deny that he made the discs, or hoped to sell them. But he says this was no profit-making scheme. By his account, he just wanted to make it easier to extend the usefulness of secondhand computers — keeping more of them out of the trash.

The case centers on "restore discs," which can be used only on computers that already have the licensed Windows software and can be downloaded free from the computer's manufacturer, in this case Dell. The discs are routinely provided to buyers of new computers to allow them to reinstall their operating systems if the computers' hardware fails or must be wiped clean. But they often are lost by the time used computers find their way to a refurbisher.

Lundgren said he thought electronics companies wanted the reuse of computers to be difficult so that consumers would buy new ones. "I started learning what planned obsolescence was," he said, "and I realized companies make laptops that only lasted as long as the insurance would last. It infuriated me. That's not what a healthy society should have."

He thought that producing and selling restore discs to computer refurbishers — saving them the hassle of downloading the software and burning new discs — would encourage more users to restore their computers instead of discarding them. In his view, the new owners were entitled to the software, and this just made it easier.

The government, and Microsoft, did not see it that way. Federal prosecutors in Florida obtained a 21-count indictment against Lundgren and his business partner, and Microsoft filed a letter seeking \$420,000 in restitution for lost sales. Lundgren claims that the assistant U.S. attorney on the case told him, "Microsoft wants your head on a platter and I'm going to give it to them."

The U.S. attorney's office in Miami and Microsoft declined to comment. Senior U.S. District Judge Daniel T.K. Hurley observed that none of the discs Lundgren made were actually sold and declined to order him to pay restitution. Hurley imposed a 15-month sentence that was less than half of that called for by federal sentencing guidelines, which indicated 36 to 47 months.

In court, the judge made it clear that this was a tough case.

"This case is especially difficult," Hurley told Lundgren at his sentencing last May, "because of who you are today and in terms of who you have become." The judge received evidence of Lundgren's recycling company, IT Asset Partners, his projects to clean up e-waste in Ghana and China and a 2016 initiative in which Lundgren's company repaired and donated more than 14,000 cellphones and \$100,000 to "Cellphones for Soldiers" to benefit U.S. soldiers deployed overseas.

Lundgren grew up in Lynden, Wash., where, as a 16-year-old, he became the town's computer recycler after the local sheriff's department heard about his talent for fixing or reusing computer parts. Some parts of a computer, for example, the Apple touch screen, are proprietary and cannot be recycled. But 95 percent of a computer, Lundgren said, such as the battery or the motor or the circuits, are generic and can be reused or repurposed. He has devoted much time to recovering discarded batteries, whether from cars or computers, and reusing them in wheelchairs, electronics and various vehicles.

At 19, Lundgren moved to Los Angeles and started his first electronics recycling company, and at 20 he landed his first big client: American Airlines, refurbishing and selling about 40,000 computers a year. The computers came with the original license or "certificate of authenticity" stickers and with product key numbers on the sticker, though their hard drives had been erased, so reinstalling Windows was legal, Lundgren said.

"If they brought in a computer without a certificate of authenticity," Lundgren said of his customers, "then we'd part it out" and not refurbish and resell it. He added clients including Dell, Asus, Lenovo and Coca-Cola to handle their discarded computers.

Lundgren became intrigued with following the world's e-waste stream and wound up moving to China. "I learned the back end of what happens when things are thrown away," he said. He became more focused on reducing the ever-growing heaps of discarded plastics and glass that a use-it-and-toss-it society creates, eliminating the burning of electronic trash that pollutes the air and combating the leakage of computer-based chemicals that filter into the water.

While in China, Lundgren hit upon the idea of selling "restore discs" to computer refurbishers. The discs work if computers still have their license and product keys available, and the license transfers with the computer, no matter who owns it.

"Microsoft does not sell restore CDs," Lundgren said. "Microsoft sells licenses" that enable their software to work, Lundgren said, from \$300 for a new operating system to \$25 for a license for a refurbisher who wants to resell a computer that does not already have a licensed copy of Windows.

In 2013, federal authorities intercepted shipments of 28,000 restore discs that Lundgren had manufactured in China and sent to his sales partner in Florida. The discs had labels nearly identical to the discs provided by Dell for its computers and had the Windows and Dell logos. "If I had just written 'Eric's Restore Disc' on there, it would have been fine," Lundgren said.

As a result of violating the copyright of Windows and Dell, Lundgren pleaded guilty to two of the 21 counts against him. But he believed that since the discs had no retail value and were seized before they were sold, he would not receive any prison time. His sentence was based on the financial loss involved.

Microsoft attorney Bonnie MacNaughton wrote to Hurley, the judge, describing the case as one of "software piracy," costing the computer industry billions annually, and saying that prosecution was important "to deter others from engaging in the illicit global trade in decoupled product activation keys" — meaning the sale or trade of the license stickers applied to the originally licensed computer. Microsoft calculated that Lundgren's 28,000 restore discs could have been sold to refurbishers for \$20 each, and that 75 percent of that total was Microsoft's average profit, so it demanded restitution of \$420,000.

As their expert witness at the sentencing, prosecutors called a Microsoft program manager from Ireland to explain to the judge how the discs worked and their value. Jonathan McGloin testified that Microsoft licensed Windows to computer manufacturers such as Dell and also licensed them to make restore or recovery discs to be included with the new computers. McGloin also testified that Microsoft charges computer refurbishers about \$25 for a new license and copy of the software but didn't differentiate that from what was done by Lundgren, who was not making a new copy of the software and intended his restore discs only for computers that were already licensed.

"In essence, I got in the way of Microsoft's profits, so they pushed this into federal court on false pretense," Lundgren said. He said McGloin "testified that a free restore CD was worth the same price as a new Windows operating system with a license. ... This was false and inaccurate testimony provided by Microsoft in an attempt to set a precedent that will scare away future recyclers and refurbishers from reusing computers without first paying Microsoft again for another license. ... Anyone successfully extending the life cycle of computers or diverting these computers from landfills for reuse in society is essentially standing in the way of Microsoft's profits."

Lundgren called his own expert witness, Glenn Weadock, an author of numerous software books who testified for the government in a major antitrust case against Microsoft that was resolved in 2001. Weadock was asked, "In your opinion, without a code, either product key or COA [Certificate of Authenticity], what is the value of these reinstallation discs?"

"Zero or near zero," Weadock said.

Why would anybody pay for one? Lundgren's lawyer asked.

"There is a convenience factor associated with them," Weadock said.

Still, Hurley decided that Lundgren's 28,000 restore discs had a value of \$700,000, and that qualified Lundgren for a 15-month term along with a \$50,000 fine. He denied Lundgren's request to remain free pending his appeal, but the U.S. Court of Appeals for the 11th Circuit granted the request as Lundgren was about to surrender for imprisonment.

"I thought it was freeware," Lundgren said of the restore discs. "If it's free, then I'm just going to duplicate the free repair tool and give it away, and that'll be fine," he thought. "The value's in the license. They didn't understand that."

His appeal is pending before the 11th Circuit, with oral arguments not yet scheduled.