The benefits of e-waste management go beyond the environment

Electronic waste (e-waste) is the fastest-growing solid waste stream in the world, according to the World Health Organisation. Over 61 million metric tons of electronic devices, such as computers, servers, smartphones, and printers, were discarded in 2023, and the annual total is expected to grow to nearly 75 million metric tons by 2030. Less than 18% of that digital scrap is currently recycled.

Growth in e-waste has accelerated as the useful life of electronic equipment has grown shorter. Digital transformation initiatives have increased the pressure on IT executives to outfit their workforces with the latest technology – and lots of devices.

Heavy metal stew

All that electronic equipment is a ticking environmental bomb. IT assets contain hazardous materials like lead, mercury, and cadmium, which can leach into the environment if disposed of improperly. Heavy metals pollute the soil and groundwater, creating health hazards for people and wildlife. Electronics disposal even drives increased mining activity when precious metals aren't reclaimed. One ton of circuit boards is estimated to contain up to 800 times more gold than one ton of gold ore. While the individual quantities are small, extracting them at scale is profitable. Tom's Hardware recently reported that some companies earn up to $85,000 daily by recycling gold and copper from discarded electronics.

Discarded or recycled electronic devices may also contain sensitive data. In 2022, a large global bank paid $60 million to settle a lawsuit by customers who claimed the firm failed to delete personal data when retiring old information technology. A 2021 Kaspersky audit of second-hand devices in the U.K. found that 90% contained traces of private and business data and 74% held data that could be recovered with special tools.

Sustainability mandate

IT executives can't afford to ignore the e-waste problem. More than 90% of S&P 500 companies now have environmental, social and governance initiatives in place, making sustainable practices a business mandate. Failure to responsibly manage IT asset retirement can turn into a reputational nightmare.

> **"** By 2027, 25% of CIOs will have compensation linked to their sustainable technology impact. **"**
>
> **Gartner®, Top Strategic Technology Trends for 2024: Sustainable Technology**

Fortunately, there are many ways to make responsible disposition manageable and even a source of financial benefit. A central tenet is circularity, which aims to move away from the traditional linear "take-make-dispose" model and embrace practices that promote reuse, remanufacturing, and recycling.

Procuring assets

At the front end of the buying process, IT organisations can prioritise doing business only with companies that have made public commitments to make their products more sustainable. Most major technology firms have such practices in place. They are willing to share details of how they reduce the use of hazardous materials and encourage responsible recovery of end-of-life products.

For example, Dell's Project Luna is focused on reimagining the design and lifecycle of laptops to be more sustainable through modularity, ease of repair, and eco-friendly materials. Other major PC makers have initiatives as well.

Life extension

Internal reuse programs can squeeze years of life out of aging equipment. Not everyone in a company needs the latest and greatest technology. Computers that no longer meet the needs of processing-intensive functions like engineering and graphic design may be perfectly acceptable for routine office work or call centres.

Thorough asset tracking and a sound device reclaim process also reduce unnecessary procurement of new assets.

" About 30% of enterprise IT hardware may be missing, lost or "ghosted" in enterprise environments today, which happens at any stage of the life cycle — from procurement to provisioning to upgrading. This not only contributes to excess e-waste but also results in financial loss, environmental fines and data loss. **"**

Gartner®, The Complete Guide to a Sustainable Device Life Cycle Using the IT Circular Economy

Using cloud services can also reduce an organisation's need for frequent technology upgrades. Many computing-intensive applications can be moved off desktops and local servers and run more efficiently in the cloud. Old PCs can become, in effect, terminals for cloud services, adding years to their useful life. Cloud providers' economies of scale and shared infrastructure make them more efficient at processing data than local data centres. All also have ambitious programs to reduce power consumption and carbon emissions.

Circular end-of-life

Implementing a circular disposition strategy, which includes remarketing, refurbishment, and recycling, has multiple benefits.

Once fully sanitised of all data and licensed software, end-of-life equipment can often be resold, if in good condition, or donated to charities or schools, which are happy to have it. Donations may even qualify for a tax deduction.

When whole assets cannot be remarketed, components harvested from end-of-life equipment, such as circuit boards and hard drives, may be sold for repurposing in low-powered devices like factory floor controllers and sensors. Gold, silver, platinum and palladium in electronics can also be recovered and sold at a material level. Iron Mountain Asset Lifecycle Management provides value recovery to clients through the remarketing of retired IT assets and components.

Security and data privacy should be at the top of the consideration list for organisations looking to adopt a circular approach to asset lifecycle management. Responsible service providers provide audit-ready data sanitisation, secure chain of custody and documented environmentally responsible asset disposition.

Sustainable business practices are now a front-and-center priority in the boardroom. E-waste management must be a core competency of every IT organisation. It isn't just good for the environment; it's also a sound business practice.

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For over 70 years, Iron Mountain Incorporated (NYSE: IRM) has been your strategic partner to care for your valuable assets. A global leader in storage and information management services, and trusted by more than 225,000 organisations around the world, including 95% of the Fortune 1000, we protect, unlock, and extend the value of your information and assets—whatever they are, wherever they are, however they're stored. We provide the framework necessary to bridge the gap between physical and digital and extract value along the lifecycle of your information, enabling organisational resilience. And all this with a commitment to sustainability at our core.