Choosing a Technology Recycling Vendor in 5 Steps

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Who needs a recycling vendor for technology and how do you choose the right one?

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Back Thru The Future Technology Disposal

Who Needs a Technology Recycling Vendor?

It would be hard to find a business that doesn't run on technology. Everything is online, which means that all of that business information- emails, files, scanned images, and stored data – is at risk of getting into the wrong hands when technology gets discarded.

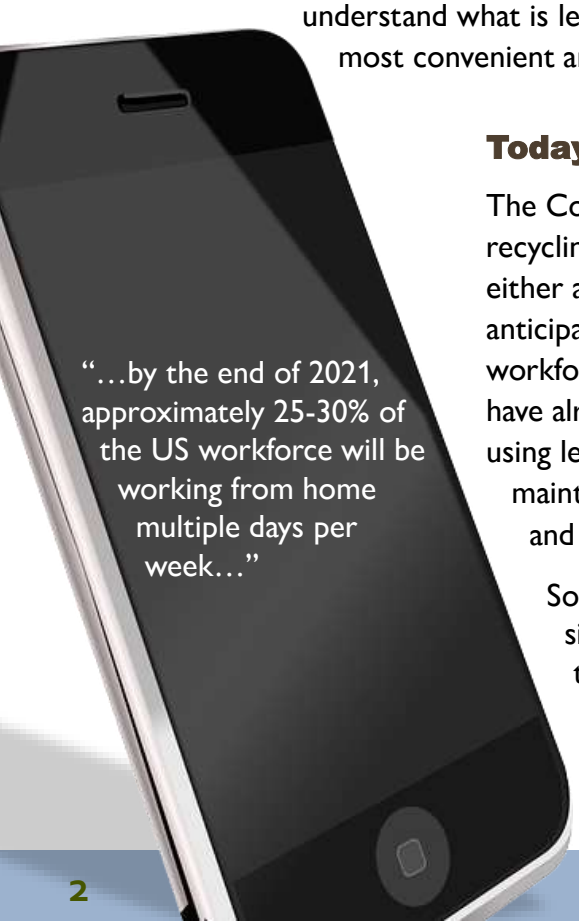
According to statista.com (https://www.statista.com/statistics/267474/average-life-of-pc-and-tablets/), in 2018, the average age of personal computers (desktop & mobile) in use in the United States is estimated to be 4.16 years. In 2021, that number is reduced to 3.94 years, which means that companies are replacing their technology faster than ever.

Additionally, with every new cell phone release, there are millions of phones that are no longer used. Even companies that hold onto their technology for longer than the average time will end up with a pile of used hard drives as they update each computer for the next employee.

Options for Consumers, Small Businesses, and Big Businesses

Consumers and small businesses with less than 10 employees have a few options when it comes to discarding their electronic devices. Most municipalities will handle household and small business electronics. Major electronic retailers, like Best Buy and Staples also run recycling programs and there are a few charitable organizations that will take usable devices.

The list of options for mid-size to large organizations is much smaller, as town recycling centers usually won't take corporate equipment. Mid-size to large businesses and organizations need to find a qualified vendor to recycle their technology. Every organization will have different requirements, so it's important to understand what is legally required, what is safest from a data security standpoint, and what is most convenient and cost effective.



"…by the end of 2021, approximately 25-30% of the US workforce will be working from home multiple days per week…"

Today's Office Space

The Covid pandemic has brought on an even greater need for technology recycling vendors. The estimated number of companies that are switching to either a fully remote, or partially remote workforce varies. Some forecasters anticipate that by the end of 2021, approximately 25-30% of the US workforce will be working from home multiple days per week. Businesses have already realized a cost savings by consolidating their office space. Besides using less real estate, electricity, and office amenities, businesses also need to maintain less desktop computers, monitors, servers, networking equipment, and phone systems than previous years.

So why can't all of those discarded, unused, obsolete, or broken devices simply be thrown in a dumpster? There are a few reasons, and each of them protect you, your employees, your business, customers, or the earth.

Who Needs a Technology Recycling Vendor?

Data Security Concerns

From accounting and banking, to customer correspondence, even the smallest businesses have sensitive data on their computer equipment. Larger businesses often have research, contracts, and employee data, while law firms and health care facilities have private, protected account information. All of that data doesn't just reside on the laptops and desktops.

According to the Federal Trade Commission:

"The hard drive in a digital copier stores data about the documents it copies, prints, scans, faxes or emails. If you don't take steps to protect that data, it can be stolen from the hard drive, either by remote access or by extracting the data once the drive has been removed…

… When you finish using the copier:
Check with the manufacturer, dealer, or servicing company for options on securing the hard drive. The company may offer services that will remove the hard drive and return it to you, so you can keep it, dispose of it, or destroy it yourself."

- https://www.ftc.gov/tips-advice/business-center/guidance/digital-copier-data-security-guide-businesses

What type of equipment has data on it?

There are privacy laws that control what information needs to be guarded and destroyed. Having a data breach not only comes with steep fines, but it can damage a business's reputation, as well as bring lawsuits, and loss of employee trust. It's not just copiers and computers that have hard drives. Printers, scanners, tablets, point of sale equipment, and cell phones, all have stored data. Sometimes data on devices isn't even inside... it's hidden on labels on the back of equipment. Barcodes and serial numbers can be traced back to the original owner, which means that if they end up in an illegal dumping site, it's the owner who will receive the fines.

Environmental Responsibility

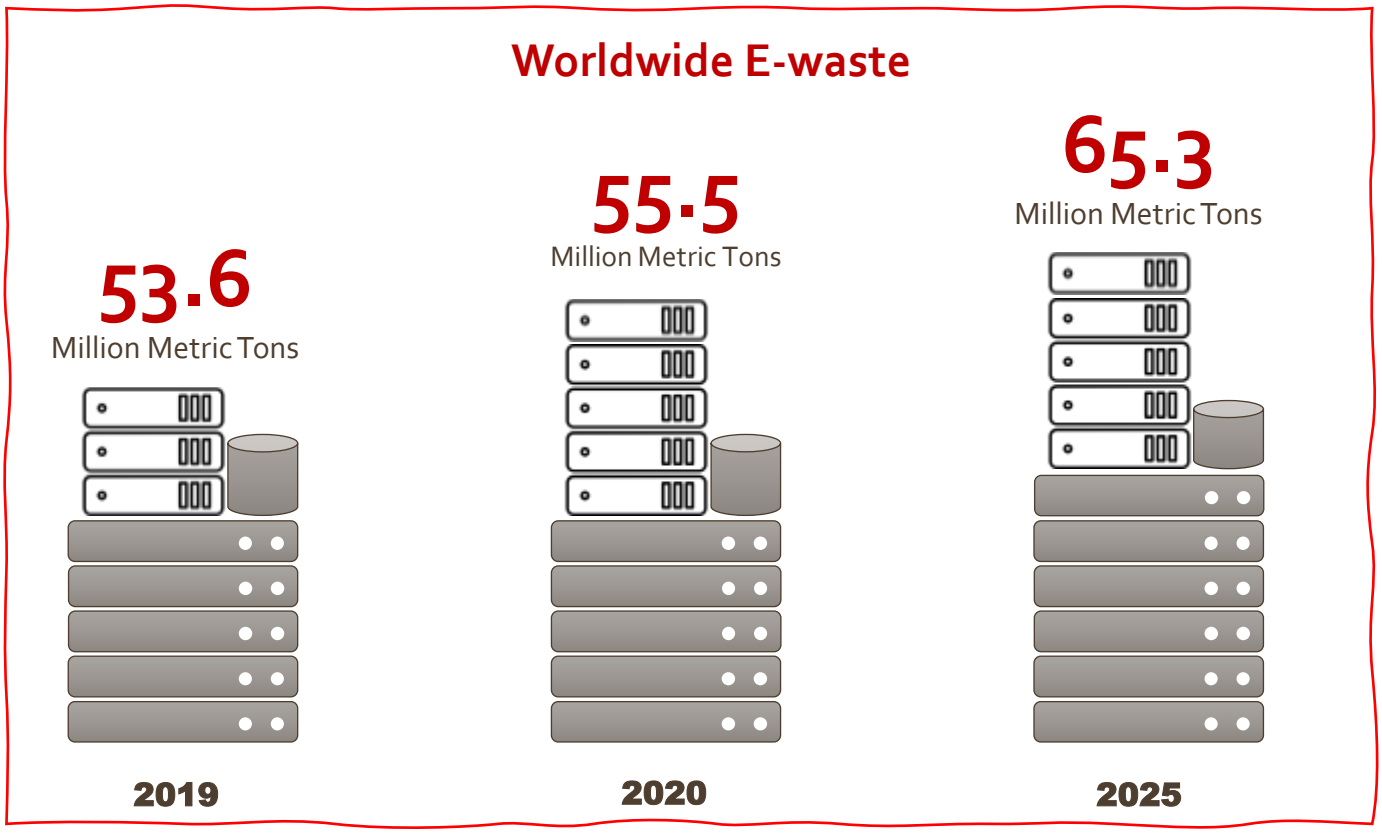
Environmental concerns are another major reason why it's important for business to use a qualified technology disposal vendor. Discarded technology pose a health and environmental hazard because they contain toxic additives and hazardous substances such as mercury, beryllium, brominated flame retardants, cadmium, chromium, lead, nickel, and zinc. These can damage the human brain and/or nervous system.

E-waste: A Global Problem

Global e-waste volumes grew by 21% between 2104 and 2019, according to the United Nations Global E-waste Monitor 2020 report. The United Nations report also states that only 17.4% of 2019's e-waste was collected and recycled. This means that gold, silver, copper, platinum, and other high-value, recoverable materials conservatively valued at US $57 billion — a sum greater than the Gross Domestic Product of most countries — were mostly dumped or burned rather than being collected for treatment and reuse.

The United States generated an estimated 6.9 million tons of e-waste in 2016 (42 pounds per person). That E-waste represented 2% of America's trash in landfills, but it equaled 70% of overall toxic waste. Those numbers continue to rise.

Worldwide, 53.6 million metric tons of e-waste was generated from electronic devices in 2019. That number rose to 55.5 million metric tons in 2020. Given that trajectory, it's estimated that by 2025, we will be generating 65.3 million metric tons of e-waste. While that number is consistently growing, the earth's natural resources are not. [1]



Environmental Responsibility

Throwing away electronics doesn't just fill our landfills. It's also a waste of money and resources. Cell phones and other electronic items contain high amounts of precious metals like gold and silver. Americans dump phones containing over $60 million in gold/silver every year. For every 1 million cell phones that are recycled, 35,274 lbs. of copper, 772 lbs. of silver, 75 lbs. of gold, and 33 lbs. of palladium can be recovered. [2]

Circuit boards from computers contain gold as well. The boards from only 100 computers could yield a few thousand dollars' worth of gold. Since gold requires stronger chemicals to be dissolved, nitric acid will melt all the plastic and metal parts of a circuit board, while leaving the gold behind. This process makes it easy for anyone with some ventilated space to extract the gold, and then discard the rest in a dumpster, which is why there are non-licensed, independent businesses willing to take electronics for free.

Environmental Laws

According to the National Conference of State Legislatures, annual technology sales in the U.S. are greater than $206 billion. The rapid increase in purchases has created a growing stream of used devices in need of appropriate management.

Currently, at least 25 states and the District of Columbia have passed an E-Waste law banning the disposal of electronics from landfills and requiring that they be recycled by an authorized technology recycling company.

There's also energy savings in recycling, which uses much less energy than the manufacturing process. It takes 530 lbs. of fossil fuel, 48 lbs. of chemicals, and 1.5 tons of water to manufacture one computer and monitor.[3]

Data Destruction Requirements by Industry

Different industries require specific data destruction requirements. All of these requirements center around protecting sensitive personal data. This information may pertain to personal information, medical records, financial records, health, legal, or student identification. These are in addition to the private business records, correspondence, employee data, research, and proprietary information that every business has stored on their devices.

Healthcare Industry

HIPAA data privacy rules are one of the best known of all federal data privacy regulations. All health service providers are required to protect their client's sensitive personal health information. This can be a costly and complex challenge. Healthcare providers are required to maintain control and security of this information over the entire life span of the data. The required documentation of the disposal of this information can be tedious, but failure to perform this task promptly and efficiently can cause significant organizational liability.

Most health service organizations utilize third party vendors to provide the destruction and disposal of the obsolete data media containing the electronic Protected Health Information (ePHI). Choosing the right vendor is especially important for the Healthcare industry, as HIPAA compliance requires that a 3rd party providing ePHI destruction services must be a contracted "HIPAA Business Associate". This agreement requires that a third party handle your ePHI with the same care and protection that your organization provides.

The Health Information Technology for Economic and Clinical Health (HITECH) Act, enacted as part of the American Recovery and Reinvestment Act of 2009, was signed into law on February 17, 2009, to promote the adoption and meaningful use of health information technology. Subtitle D of the HITECH Act addresses the privacy and security concerns associated with the electronic transmission of health information, in part, through several provisions that strengthen the civil and criminal enforcement of the HIPAA rules.

The HIPAA/HITECH act specifies that you must always know where your ePHI resides and can prove that it is secure for its entire lifecycle, from the point that it enters your IT system to the moment it becomes obsolete and recorded ePHI is destroyed. Once a device having stored data is determined to be obsolete and removed from your online system, your control system becomes a manual process. Manual systems are notoriously difficult to quality control, requiring significant management time and use of scarce technical resources. Employee turnover and time constraints can quickly create havoc with your security procedures.

Data Destruction Requirements by Industry

Legal Industry

Any type of data destruction, including hard drive shredding, can be impacted by litigation and electronic data discovery requirements. From a legal records management viewpoint, accumulating business records that can legally be destroyed is a bad and potentially expensive practice. Obsolete hard drives represent copies of business records. From a legal records management standpoint, they should be destroyed as soon as possible. In a litigation electronic data discovery scenario, courts require businesses to implement a "litigation hold" on all relevant data destruction activity. Because of this, there are many large corporations with thousands of hard drives in storage because of the litigation hold requirements. Failure to implement a litigation hold can result in court sanctions. However, the Federal Rules of Civil Procedure (FRCP) governing electronic data discovery requirements identify a "safe harbor" data destruction procedure. This process protects a business from court sanctions and means that if your data destruction activity is part of an automated records retention system you are granted a "safe harbor" exemption. Annual prescheduled hard drive data destruction services qualify for this exemption.

Financial Services

The Gramm-Leach-Bliley Act (GLBA) was established in 1999. The purpose of the GLBA is to ensure that financial institutions and their affiliates safeguard the confidentiality of personally identifiable information gathered from customer records in paper, electronic, or other forms. According to the law, financial institutions have an obligation to respect their customers' privacy and securely protect their sensitive personal information against unauthorized access.

Now, let's examine the steps to figure out how to find an appropriate technology recycling vendor for your organization.

The 5 Steps to Choose a Technology Recycling Vendor

Step 1: Evaluating Your E-waste Inventory

Taking inventory of your electronic waste doesn't just mean jotting down how much IT equipment is in the trash pile. Many times, organizations throw equipment into a dumpster that should really be recycled. To get a true picture of what you have, start with the IT equipment you currently have to discard. Then look at what is periodically replaced (such as hard drives or monitors), what is no longer being used (broken or obsolete equipment), and peripherals (like networking equipment or memory). Take a walk through the building and look for equipment waiting for repairs, items that are no longer used, piles of parts, and computers sitting on empty desks.

Enlist Help

Depending on the size of your company, you may need to enlist some help and establish some deadlines for each department or zone to clean out their unwanted equipment into one area. Have someone go through storage areas in every department. Conducting a companywide technology clean-up is a group effort and requires some organization.

If your company has a Sustainability Team, HR department, or Marketing Communications department, they may want to help. An environmentally friendly cleanup is a great way to get employee engagement. Confronted daily with evidence of climate change and other issues that harm our well-being, most of us want to do something but don't know what or how. Companies can fill this need and gain competitive advantage by transforming their employees from bystanders into owners and making sustainability part of their purpose.

Research has shown that feelings of organizational ownership and engagement leads to greater job satisfaction, productivity, and profits. Company sustainability initiatives can even positively influence customers' buying behavior and even investor reactions.

Step 1: Evaluating Your E-waste Inventory

Set Some Guidelines

Communicate to your company what date you will be collecting their unwanted equipment. It's a good idea to let them know what type of equipment they should include. Most electronics recyclers will take anything that plugs in, belongs to something that plugs in, or runs on batteries. You can usually also include stands, racks, batteries, power supplies, phones, projectors, chargers, speakers, and any other IT and A/V equipment and parts.

If you've given the company two or three weeks to gather up their e-waste, remind employees a week before the deadline that your team will be picking up their discarded electronics soon.

Gather Your E-waste

On the deadline date, have your volunteers go to each zone or location with carts and bring all the e-waste to one or two central locations if possible. If it's not realistic to do that, then gather the equipment together at each location, such as a server room, IT department, basement, warehouse, or an empty office on each floor of your building. Depending on how much you have, you may need to sort it all into separate groupings at each location. Here is a sample list of categories:

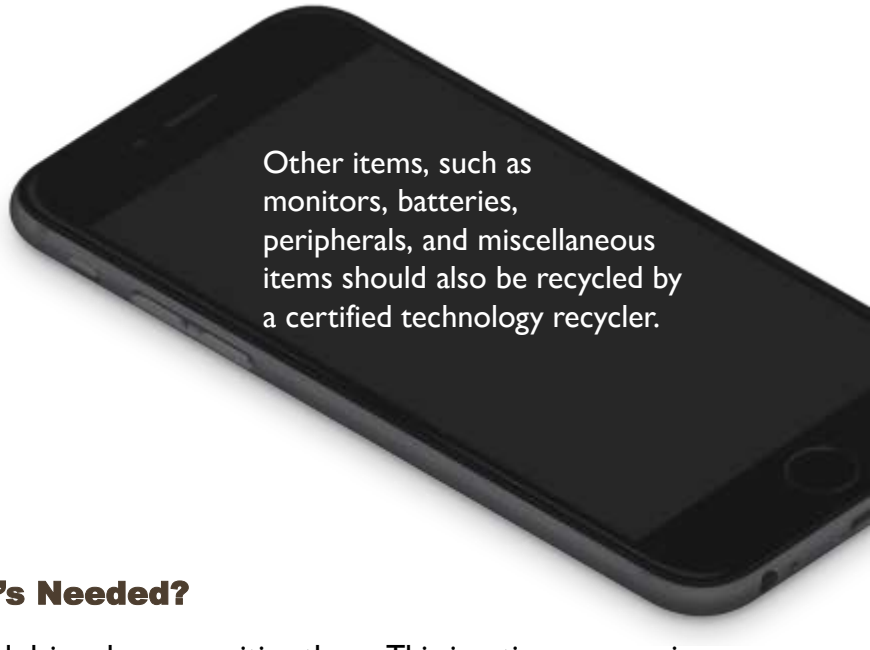
1. Computers
    a. Laptops
    b. Desktops
    c. Tablets
    d. Cell phones
2. Printers/Fax machines/Scanners
3. Drives
    a. Hard drives/SSD
    b. Tape drives or other storage devices
    c. Thumb drives
4. Batteries
    a. Small batteries
    b. Power supplies and other large batteries
5. Peripherals
    a. Keyboard, mice, cables, cameras, microphones, headsets, switches etc.
6. Miscellaneous
    a. Racks
    b. Audio Visual equipment
    c. Phones
    d. Point of Sale equipment
    e. Miscellaneous equipment or parts

Step 2: Evaluate Your Data Destruction Needs

Now that you have all your e-waste together, it's time to evaluate your needs. Any item with data on it will need to be destroyed, as it will contain proprietary business information at the very least. There's an even better chance that it will contain employee records, customer data, research and development, correspondence, or financial records.

What kind of e-waste has data?

- Laptops
- Desktops
- Tablets
- Cell phones
- Copiers/Scanners/Fax Machines
- Medical devices
- Hard drives
- Tape drives
- Thumb drives



Other items, such as monitors, batteries, peripherals, and miscellaneous items should also be recycled by a certified technology recycler.

Device Destruction/shredding - What's Needed?

Some recycling vendors promise to erase the hard drives by overwriting them. This is a time-consuming process and prone to human error. The reason they aren't destroying them is most likely because they are reselling the devices, which is a dangerous practice if the data wipe was not done correctly. A much safer solution is to find a recycling vendor that destroys hard drives completely. This ensures that your data is unrecoverable.

Due to the sensitive information on their devices, financial institutions, retail headquarters, and healthcare facilities may want to look for a vendor that can shred hard drives onsite. This guarantees that NO recoverable data leaves the facility and protects your organization from the regulatory risks of a data breach.

Solid State Drives

Today, most mobile computing devices utilize solid state storage and server hard drives are rapidly incorporating solid state data storage components. The sanitization of solid-state storage devices is becoming a significant data security challenge. Adopting onsite SSD shredding as your universal data destruction process eliminates the technical challenges of sanitizing solid state media and provides a one-stop solution to all of your data destruction needs.

Onsite shredding is the most effective method for sanitizing Solid State Drives (SSD) and solid-state cards. Because of the very small size of solid-state circuitry, NIST destruction guidelines require a maximum shred size of 1/2 inches.

Step 3: Evaluate Vendor Qualifications

Since 2014, the number of countries that have adopted a national e-waste policy, legislation, or regulation in place has increased from 61 to 78. Below are the qualifications that a reputable and safe technology recycling vendor should have:

R2 and e-Stewards®

The Environmental Protection Agency encourages all technology recyclers to become certified by demonstrating to an accredited, independent third-party auditor that they meet specific standards to safely recycle and manage electronics. Currently two accredited certification standards exist: the Responsible Recycling ("R2") Standard for Electronics Recyclers and the e-Stewards® Standard for Responsible Recycling and Reuse of Electronic Equipment© ("e-Stewards®").

Both programs oversee the following:

- Best management practices
- Environmental, worker health, and security practices
- Strong environmental standards that minimize exposure to human health or the environment, ensure safe management of materials by downstream handlers, and require destruction of all data on used technology

Through audits and other means, certified technology recyclers must demonstrate that they continually meet specific high environmental standards and safely manage used electronics. Once certified, both certifications continually oversee that the recycler upholds the certification standard. Either of these two certifications should be considered a "must have" for any technology recycling vendor.

R2 2013 Responsible™ Recycling

e-Stewards

NIST Compliance

National Institute of Standards and Technology (NIST) SP 800-53, oversees the technology, metrics, and standards used within the technology and science industries. NIST compliance helps organizations conform to the standards within the Federal Information Security Management Act, which promotes information security.

NIST National Institute of Standards and Technology U.S. Department of Commerce

ISO 9001:2015 Certified

As part of your vendor due diligence, make sure your vendors conduct business responsibly, and take care of their clients and employees. ISO certification is a seal of approval from a third-party body that a company runs to one of the international standards developed and published by the International Organization for Standardization.

Step 3: Evaluate Vendor Qualifications

NAID AAA

According to the NAID website, "NAID is the standards-setting body for the information destruction industry. NAID AAA Certification verifies the qualifications of certified information destruction providers through a comprehensive scheduled and unannounced audit program. This rigorous process supports the needs of organizations around the world by helping them meet numerous laws and regulations requiring the protection of confidential customer information." [5]

All data protection regulations require customers to perform initial due diligence and ongoing monitoring of data destruction service providers. Because it is designed specifically to verify and monitor regulatory compliance as well as security best practices, requiring NAID AAA Certification® of secure data destruction service providers fulfills the customer's regulatory obligation. With over 1,000 NAID AAA Certified locations available globally, it is far and away the most recognized and accepted data destruction operation available.

PCI DSS Certification

The PCI DSS provides guidelines for securely processing, storing or transmitting payment card data. It aims to protect organizations and their customers against payment card fraud and is made up of 12 requirements or control objectives that comprehensively protect the payments ecosystem.

State Recycling Permit

Environmental regulations governing the disposal of electronics are exclusively State regulated. Interstate commerce law require that the disposal of e-waste follow the regulations of the state that the waste is disposed in - not the state where it was generated. You need to make sure your disposal vendor has the proper certifications in the State(s) in which they reside. 7 States currently have adopted Federal EPA Universal Waste regulations for the disposal of electronics. An electronics disposal business in these states must be a licensed Universal Waste Destination facility for the disposal of electronics. The great benefit of this license is that it is legally recognized in all 50 States.

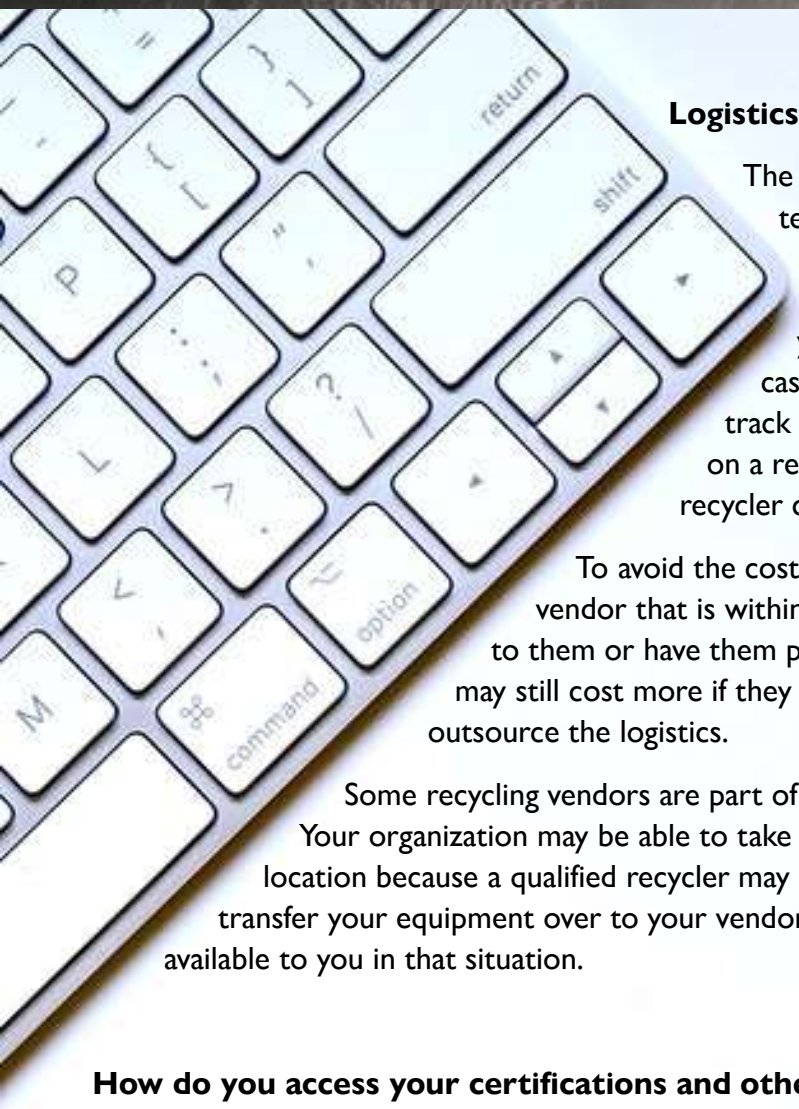
Certificates of Destruction- What is it and why do you need one?

A certificate of destruction accomplishes two things:

1. It is your proof that your devices were destroyed in an environmentally compliant manner by a certified technology recycler.
2. The proof of destruction satisfies regulatory and audit requirements regarding various privacy laws.

Ask your proposed technology recycling vendors if they provide a valid certificate of destruction or an Affidavit of Destruction. These documents should provide details, list the service provided, along with the vendor's certifications and license numbers.

Step 4: Evaluate Convenience



Logistics

The frequency that your organization will need electronic technology recycled can be an important factor when choosing a vendor. If you are recycling customer returns, you may be able to have your end users ship your items directly to your recycling vendor. In that case, your only concern might be the recycler's ability to track the devices. However, many companies require recycling on a regular basis, and how you get your devices to the recycler can be an important factor.

To avoid the cost of shipping your unwanted equipment, look for a vendor that is within driving distance so you can either deliver your e-waste to them or have them pick it up. Having a recycling vendor pick up your devices may still cost more if they don't own their own vehicles, because they will have to outsource the logistics.

Some recycling vendors are part of a larger network of qualified and licensed recyclers. Your organization may be able to take advantage of this, by looking outside of your geographic location because a qualified recycler may have access to a partner to perform the pickup, then transfer your equipment over to your vendor. A full chain of custody document should be made available to you in that situation.

How do you access your certifications and other documents?

Regulated industries, like healthcare, legal, or financial services, will need to maintain auditable documentation of their data disposal. The more detailed the documentation the more likely you will pass an audit.

Ask your proposed vendor what documents they provide at the end of your job. How do you retrieve your documentation? Do they email it or is there an online repository where you can see them?

Scheduling and Containers

Some organizations know they will require device destruction on a regular basis. Do your vendors require you to call and schedule a new pickup every time, or can you pre-schedule your recycling?

Will they provide bins for you to keep your devices in? If so, are they locked and sealed? Leaving an open container of hard drives at your facility is a dangerous practice, because they can be sold for the information on them, as well as the raw materials.

Step 5: Narrow Down the Winner

Now that you:

1. Evaluated your e-waste inventory
2. Evaluated your data destruction needs
3. Evaluated your vendor qualifications
4. Evaluated the convenience they provide

It's time to narrow down your choices to your top vendor. Here is a list of criteria to use to help:

A. **Do they specialize in your industry?** Talk to your sales representative and look at their website. A recycling vendor with experience in your industry will know the privacy laws that govern your disposal process.

B. **Will you get a dedicated account manager**? If so, what is their experience? An experienced account manager will know what questions to ask to avoid miscommunication and ensure that you get the services your business needs.

C. **How quickly do they respond** to questions? Even if you are a small account, you should still expect a call back quickly.

D. **Ask for references**. Preferably in your industry or general location.

E. **Ask to see their licenses and credentials**. If your company gives preferences to minority, women, or veteran owned businesses, ask if they are certified.

F. **How long have they been in business?** A recycling vendor that has been in business for a long time will have more experience and a greater value for their reputation as a service provider.

G. **Ask for a quote.** When comparing quotes, make sure you are comparing the same services. Recycling vendors that don't own their own vehicles may add a logistics charge to your invoice or you will have to arrange for shipping.

What to Avoid

“Free”

There are a lot of small “recycling” businesses that promise to pick up your discarded equipment for free. Sometimes you may even be promised a small profit. For some businesses, this can be a tempting offer.

The dangers lie in what these “recyclers” do with your devices. The reason they will take your devices is to either refurbish and sell them, or to melt the boards down and retrieve the precious metals. Without proper licensing, you will have no way of knowing how secure their warehouse is, what will end up in a landfill with your company's identification, or what is done with your data before being resold. Are you willing to take that risk?

Registered Vs. Certified

Any vendor can register with a regulatory agency, attend meetings and network with members, but unless they are certified, they have not gone through the vigorous standards and process review that is required to get certification. Don’t be fooled by the word “registered”. A certified vendor will be able to show you their certification and licenses.

With the right due diligence, you should easily find a technology recycling vendor that provides regulatory compliant IT disposal services focused on protecting their clients. With procedures and documentation that have been perfected over many years, you will have a business partner that you can trust to keep you, your data, and your company secure.

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5. https://naidonline.org/certifications/why-use-a-certified-co/