

IT Asset Disposition Trends and Best Practices

January 2015

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Retiring unwanted IT assets should be a secure, environmentally responsible and convenient process. It also can — and should — generate value.

This report summarizes data Cascade compiled from (1) a December 2014 customer survey, (2) an evaluation of more than 200,000 assets processed by Cascade in the past twelve months, and (3) a review of related industry research. It identifies best practices that can help you make better informed decisions as your IT Asset Disposition (ITAD) program evolves.

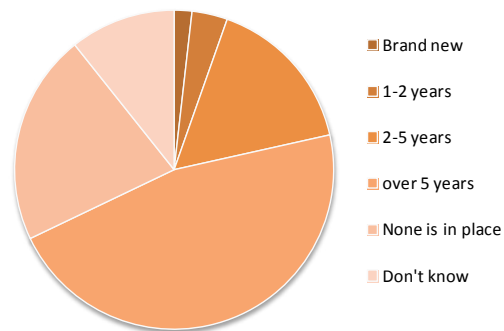
Cascade issued a detailed survey to all its active customers and a representative sample completed the survey. Participants included IT Asset Management (ITAM) professionals at businesses and organizations across the United States that collectively employ millions and represent Fortune 500 firms as well as smaller companies. More details on the participants’ demographics, as well as the survey responses and links to source material, are available on Cascade’s web site at www.cascade-assets.com/tools.

A report prepared by
Cascade Asset Management



IT Asset Management Programs

How long have you had an ITAM program in place?



How important are the following considerations when disposing of your surplus technology?

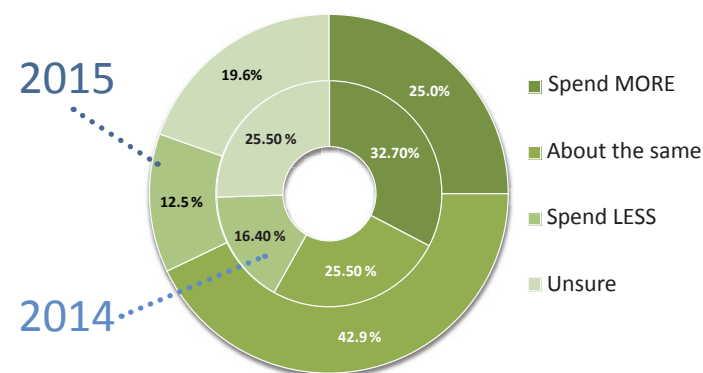
rated on a scale of "1 to 5" with 5 being "critically important" and 1 being "least important"



Effective IT asset retirement begins with a coordinated IT Asset Management process. Successful ITAM strategies help organizations **generate value** from their IT assets and **reduce risk**. The IT Asset Manager is responsible for managing the disposition vendor, ensuring personally identifiable information is destroyed, and reporting asset status for financial accounting. Cascade has found that the most effective ITAM programs involve stakeholders from IT, risk management, facilities, environmental health & safety, finance and procurement. Because the CIO and other executives of an organization can be personally liable for the improper disposition of IT assets and loss of data during disposal, it is a good idea to include them in the ITAM program, too.

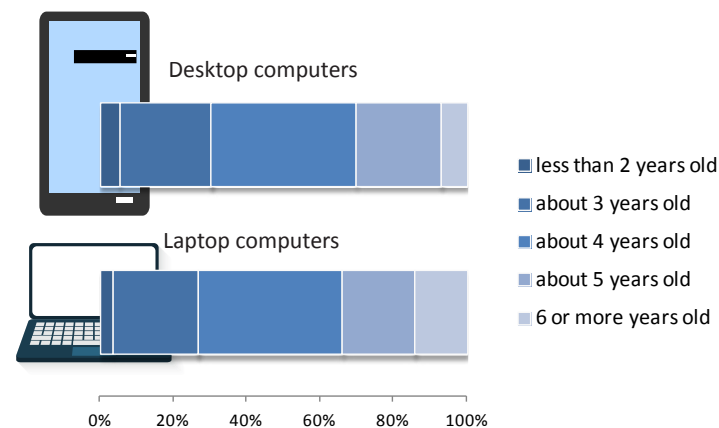
IT Asset Purchase and Disposition Forecast

Do you expect to spend more or less money on IT hardware next year?

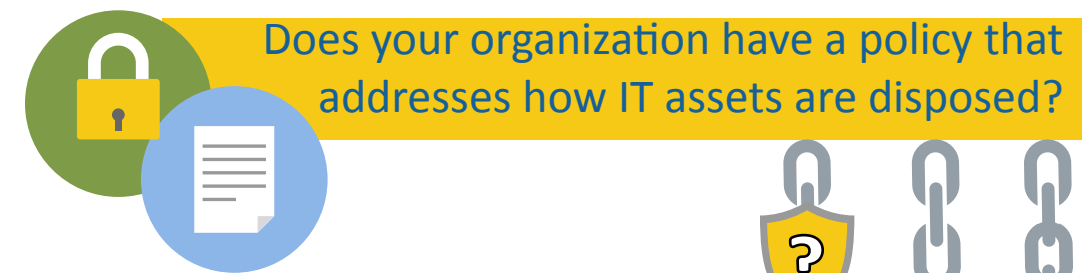


Sixty-eight percent of respondents indicate they will spend the same or more on IT hardware in 2015, up from 58% in 2014. Only 12.5% of organizations think they will spend less in 2015, down from 16.4% in 2014.

How old are the majority of computers you expect to retire in 2015?



Cascade's analysis of its own resale data shows working computers retired after three years typically retain 28% of their original purchase price when resold. After four years, the value drops to 18%. Five years after purchase, the value is just 12% of the original price.



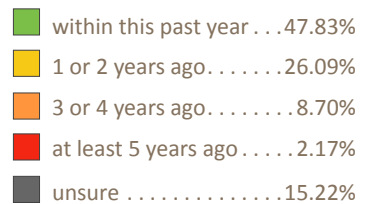
Does your organization have a policy that addresses how IT assets are disposed?

Many industries are now regulated by some type of Privacy Protection Rule such as HIPAA or FACTA. For those organizations not required to comply with a particular regulation, these privacy rules still offer useful guides for establishing and maintaining programs that reduce the risk of a data breach or security attack. One critical requirement of all privacy regulations is the establishment of a security policy that addresses the proper destruction of personal information when IT assets are disposed. Just under 75% of our survey respondents had such a security policy in place, while 18% knew they did not have a security policy and 7% were unsure. **Every organization should have, and be aware of, an IT security policy.**

It is also recommended the policy address specific elements, such as employee training, vendor management, and data sanitization standards. A policy is an important tool for setting consistent standards throughout the organization.

How does your organization compare to other Cascade clients? If you need help drafting a sample policy, please visit www.cascade-assets.com/tools.

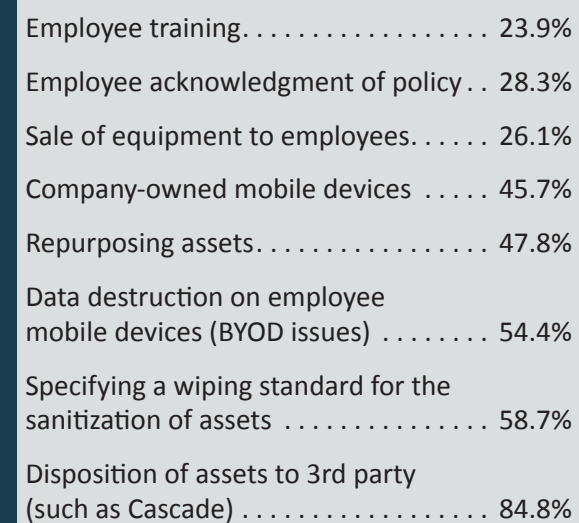
When was the last time this policy was reviewed?



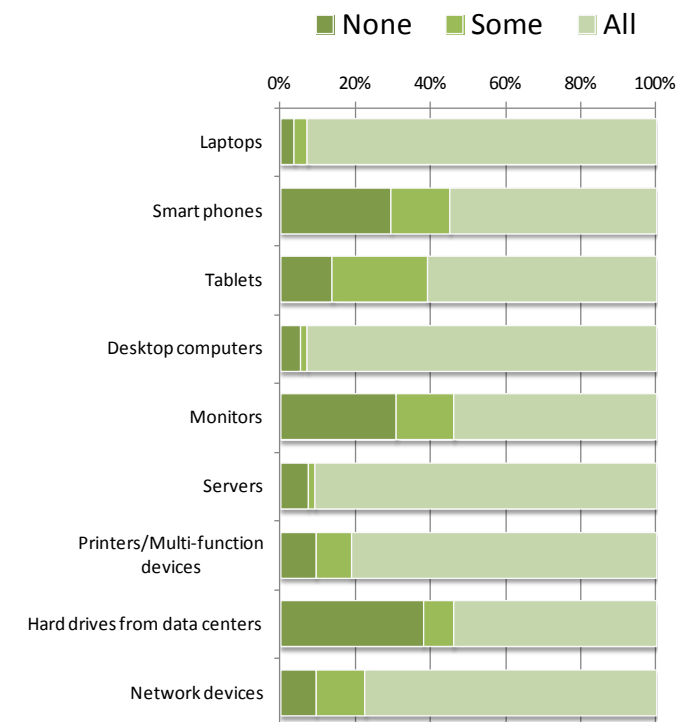
HIPAA requires security policies be "reviewed and updated as needed," which typically means they should be checked annually. Cascade often discovers most company policies are out-of-date and do not reflect current guidelines or regulatory requirements.

What is your current policy for IT security and asset disposition and when was it last reviewed?

What aspects of IT asset disposition do your policy address?



What types of assets do you track internally?



Most firms track laptops, computers and servers that contain data storage devices. There has been a trend away from tracking individual monitors, since they've become a "swappable commodity" without individual data security risks. Many firms are concerned that they don't have a good handle on the mobile devices they now support.

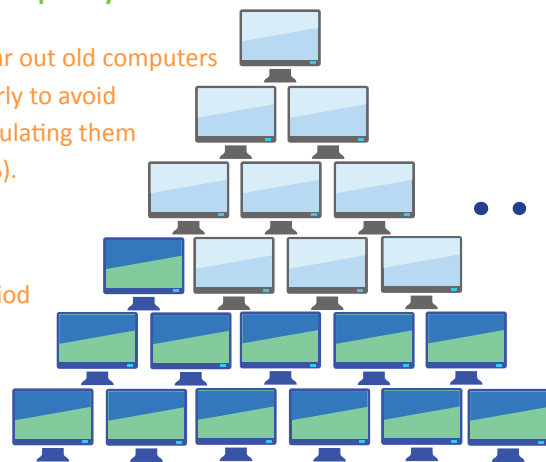
How IT Assets Flow Through the Disposition Process

The data provided in this report are from Cascade's December 2014 customer survey and an analysis of hundreds of thousands of assets picked up for processing by Cascade between December 2013 and November 2014.

Does your company tend to . .

. . .clear out old computers regularly to avoid accumulating them (42.9%).

. . .accumulate old computers for a period before you contact someone for disposal (57.1%).



Cascade found that working IT assets lose about 3.5% of their value each month. That makes it expensive to stockpile newer equipment. On the other hand, if your items are more than 4 years old, and you have a place to store them, it is better to accumulate your surplus assets to reduce per asset transportation costs when it comes time to dispose of them off site.



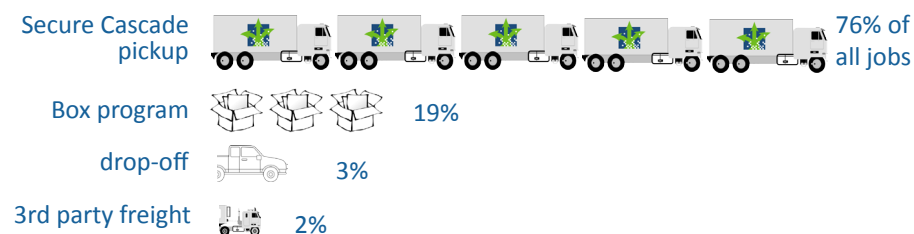
Inventorying assets

In this 12-month period, 65% of customers elected to have Cascade perform an inventory of their assets, allowing them to track these items to final disposition and to comply with the NAID security certification. Their work represents 93% of all jobs and 90% of all weight received.

A proper inventory and accounting of assets and data to the point of final destruction is the only way to ensure a particular device is retired from use and that your liability is protected. Ideally, Cascade's electronic disposition reports should be reconciled against your internal records to track each asset throughout its lifecycle.

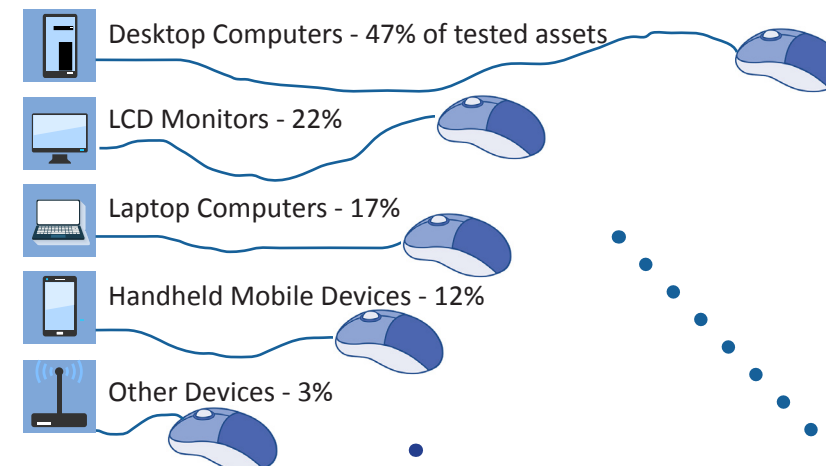
Transporting assets

Organizations need to consider security, convenience and cost when determining the best way to haul away their surplus IT assets. Cascade is unique in offering a secure chain of custody using our own background checked, professional employees and vehicles to transport equipment from customer sites to Cascade. Most people select this option, though other services are used as well.



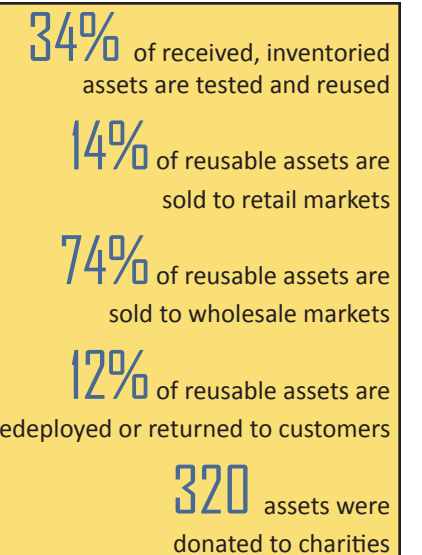
Testing, sanitizing data & refurbishing

Cascade technicians have tested over 4,000 different make/model combinations of IT equipment for reuse potential. The service eliminates all personally identifiable information on the equipment while optimizing the reuse potential of the assets.



Reuse & resale

Cascade manages its own resale store and also wholesales tested, working, warranted products to local and international buyers. A percentage of the resale revenue is shared with customers.

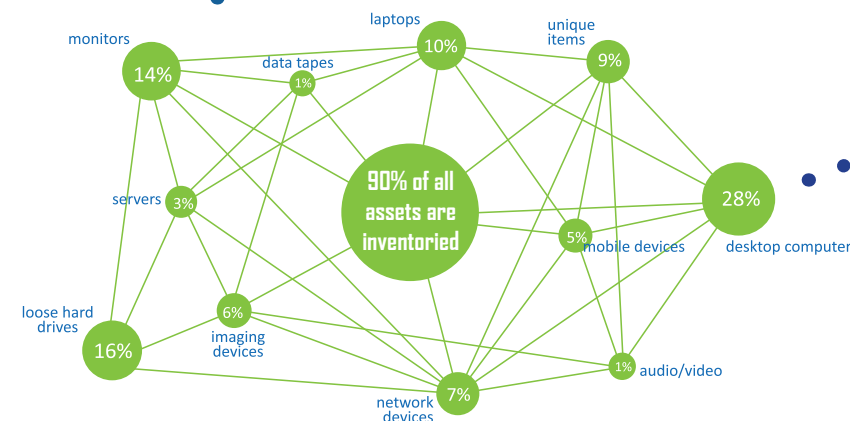


Demanufacturing & recycling

Cascade's two processing plants use manual disassembly techniques to separate end-of-life electronics into more than 50 different commodity streams for further processing. This approach ensures hazardous materials, such as mercury from LCD panels and lead from batteries and CRTs, are safely contained and sent to appropriate treatment facilities. Valuable metals and plastics are also recovered and recycled. Cascade annually audits all its downstream processors to ensure they operate effective and safe treatment systems.



Molten lead recovered from sealed lead acid batteries Cascade demanufactured from UPS units. Cascade tracks and audits the downstream treatment process to stringent e-Stewards standards.



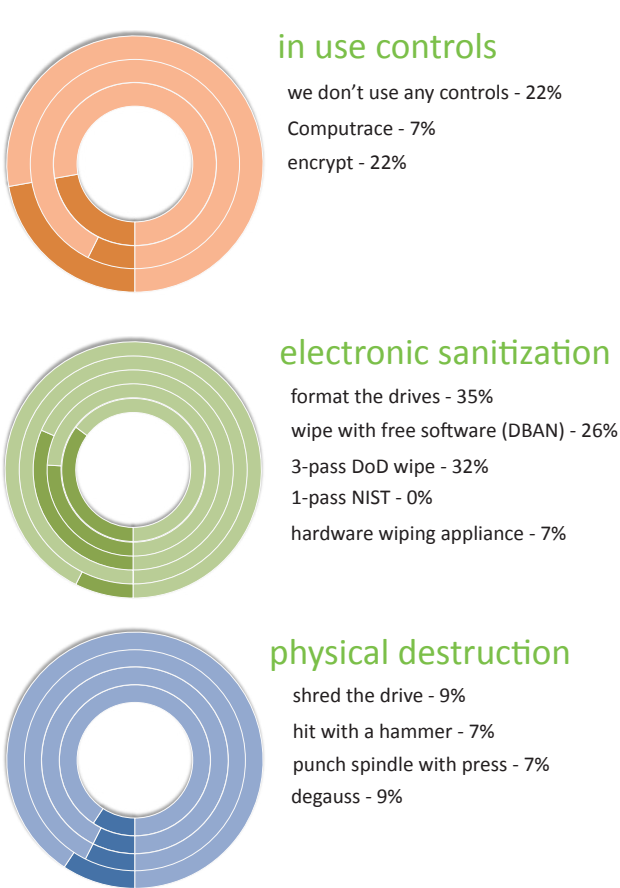
Security Concerns

Which methods do you use (internally) to control and destroy data on hard drives?

Organizations report that they may use one or more ways to control and destroy data on their hard drives before these devices leave their premises. Surprisingly, a significant number (22%) report they do not put any controls on the data on their hard drives. It is recommended all mobile devices (including laptops) should be password protected and encrypted, since there is a greater risk of loss of these devices. Computrace is a tracking software embedded in the BIOS of the device which can help locate lost or stolen assets. Cascade now helps companies collect and de-activate Computrace enabled devices.

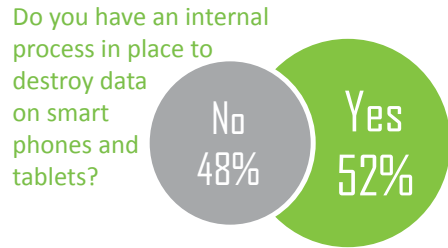
When companies perform data destruction on their own, many use ineffective (e.g., drive formatting) or obsolete (e.g., DoD 3-pass wipe) processes, which waste time and money. Overall, the vast majority expect Cascade to do all data destruction, or at least check their controls.

"The 3-pass Department of Defense wipe standard is obsolete and should be replaced with processes defined in the NIST 800-88 Rev. 1 guidelines."
- Todd Barelmann, Certified Secure Destruction Specialist & Director of Operations, Cascade



Special media sanitization

Different technologies are required to destroy data on Solid State Devices (SSD) and flash media in many tablets and smart phones. Our survey indicates many firms are still looking for processes to sanitize these media.



Data breach incidents - something to avoid!

There are now plenty of examples to justify investments in security controls and disposition programs. Increased penalties and regulations require organizations to implement ITAD strategies that seek to prevent and limit the loss of consumer and patient data.

Financial Sector

The Federal Trade Commission has brought nearly 60 enforcement actions for data security issues since 2002, with 20% coming since June, 2013. On April 15, 2014, the SEC issued a "Cybersecurity Initiative" increasing the focus of regulators on this issue. Cascade can help your ITAD disposition program be compliant with these requirements.

Business Associate Agreements

Covered Entities are now required to execute contracts and Business Associate Agreements with vendors processing IT assets containing personal health information. Be sure you meet this requirement and your disposition program is consistent with your security policy.

Healthcare breaches

In 2014, just under 9 million patients were impacted by data breaches at 163 Covered Entities (as reported to HHS). The vast majority of breaches were the result of hardware incidents (70% from theft or loss; 4% from improper disposal). An effective disposition program is essential to prevent these types of incidents.

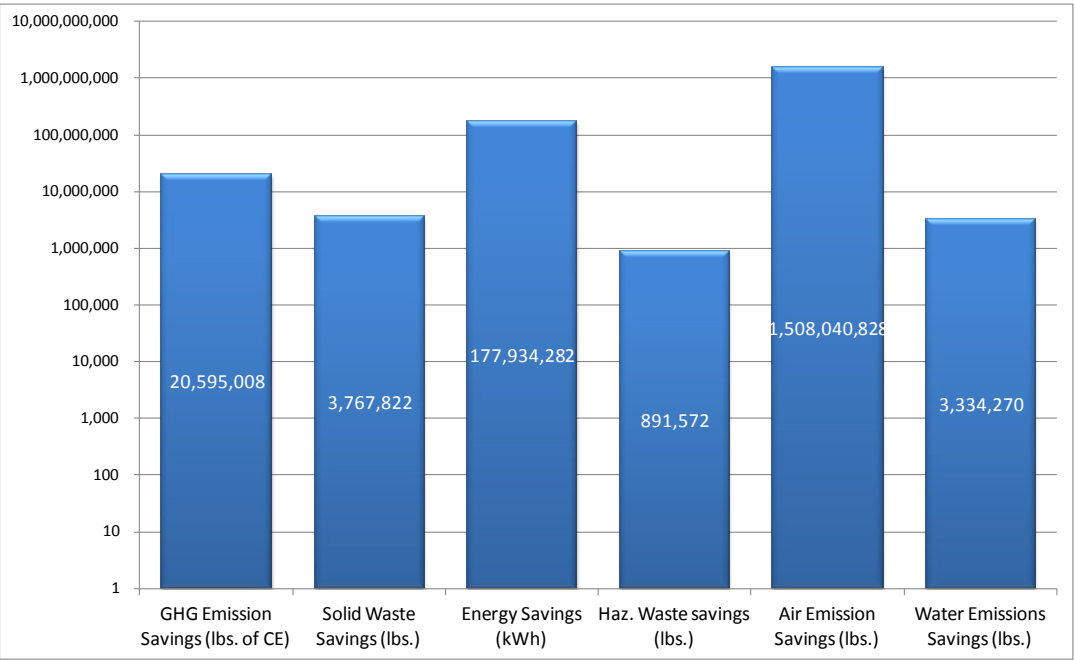
Cost of breach

In 2013, the average cost of a data breach in the U.S. rose to \$5.8 million - an 8 percent increase over 2012. A small investment in responsible IT asset retirement is much less expensive than a data breach or government fine.

Environmental Issues

Environmental benefits of electronics reuse and recycling by Cascade

IT equipment received from all customers between December 2013 to November 2014



Environmental Equivalents of Electronics Processing Activity	
	Save enough energy to power 14,871 typical US homes
	Equivalent to removing 6,272 passenger cars from the road for 1 year
	Equal to saving the amount of solid waste generated by 857 US households over the course of a year
	Saves the equivalent of primary materials used to make 13,244 refrigerators
	Equal to reducing emissions (air) by 683,919 metric tons
	Total carbon saved: 10,297.5 tons

Why reuse and recycling is important

gold recovery

One metric ton of electronic scrap from personal computers contains more gold than what is recovered from 17 tons of ore.

fossil fuels

The manufacturing of a computer and a monitor takes at least 530 pounds of fossil fuels, 48 pounds of chemicals, and 1.5 tons of water - more than the weight of a rhino.

energy use

Recycling aluminum from computers (which is used in cases, heat sinks, and printer rollers) uses 90% less energy than what is needed to mine new aluminum.

Illegal dumping of e-waste is a problem at home and abroad

While most of the coverage of e-waste dumps focuses on China and Africa, there are plenty of instances of improper disposal right here in the U.S. It is essential to demand a transparent and responsible downstream recycling process for disposed IT assets.



The above photo was taken in September 2014 at a site in Oconto County, Wisconsin where residents were illegally burning electronics as part of an effort to recover scrap metal. The photo shows broken CRT glass, which contains lead. Photo courtesy Wisconsin DNR.

Moving forward

Best practices in IT Asset Disposition

Based on the survey responses of IT Asset Management practitioners and Cascade's experience processing millions of assets, we recommend all institutions consider the following practices in order to maximize positive outcomes in IT asset disposition:

- ✓ Work with top management to review and update your IT security policy to ensure it covers the entire scope of devices you support and reflects current data sanitization guidelines (NIST 800-88).
- ✓ Track and manage IT assets throughout their lifecycle to better support repurposing, reuse, and accountable disposition. You can't improve what you don't track!
- ✓ Communicate the value of your IT Asset Management program to your organization and customers. Your work provides essential risk protection, value recovery and environmental benefits that wouldn't otherwise be possible.



Handling mobile devices

What percentage of employees at your company use their own mobile device for work (BYOD)?



YES - 67%

NO - 33%

As mobile devices become more prominent as a work tool, IT Asset Managers must adapt their programs accordingly. Many organizations are playing catch-up in this area. Ninety-two percent report they offer company provided smart phones and/or tablets, and 67% support BYOD programs, yet 46% do not address data destruction on these devices in their IT security policy and 48% do not have internal destruction programs in place. Cascade does offer sanitization and reuse of many of these devices.

Safe & Sound® IT Asset Retirement Since 1999

Let Cascade put its experience and resources to work for you. Contact us for details on services and resources that support your ITAM programs.

"I have worked with Cascade Asset Management for over 10 years and never had any issues. They have consistently been easy to work with and have always provided a high level of assurance that our assets are being processed or disposed of in a very secure, consistent and ethical manner."

- Gary Statz, CUNA Mutual

Contact Cascade for further assistance

<div style="background-color: #4CAF50; color: white; padding: 5px; display: inline-block;">Schedule a Pick-up</div>	www.cascade-assets.com/pickup	pickup@cascade-assets.com	608.222.4800
<div style="background-color: #4CAF50; color: white; padding: 5px; display: inline-block;">Learn about Services</div>	www.cascade-assets.com/solutions	info@cascade-assets.com	608.316.1606

