

IT Asset Disposition Trends and Best Practices

2017 - *Learning together to improve outcomes*

This third annual benchmarking report provides information and research on security, environmental, and financial issues related to IT Asset Disposition (ITAD) and the more general IT Asset Management (ITAM) discipline.

This report was built from data Cascade compiled through (1) a December 2016 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.

This year's report focuses on how organizations can further develop their ITAM and ITAD programs to better mitigate risk, lower overall program costs, and optimize the use of IT assets.

As a benchmarking tool, we encourage you to use the information to help understand how your ITAM/ITAD program compares to others and how you can further improve your systems to better attain your desired outcomes.



Links to additional content

Throughout this report, look for the "graduation cap" to continue your education and learn more about the topic being discussed. The on-line version of this report includes clickable links to additional research and more indepth analysis. You can also access free templates, tools, and calculators to help you make the most of your ITAD program. The electronic report is posted at:

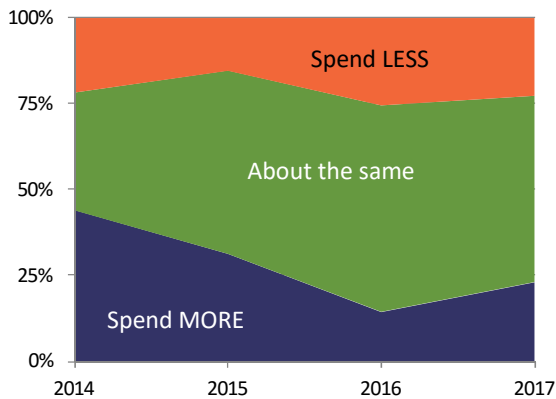
www.cascade-assets.com/2017report

A large crowd of people, seen from an aerial perspective, forming a large 'W' shape on a white surface. The people are dressed in various colorful clothing, and some are on bicycles. The 'W' shape is composed of many small groups of people, creating a sense of a large gathering or event.

A report prepared by
Cascade Asset Management

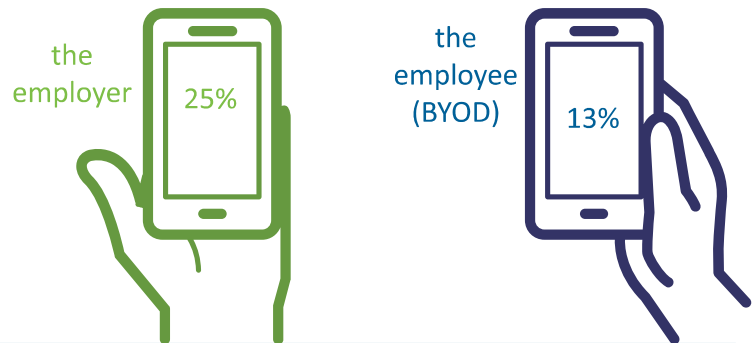
IT Asset Procurement Trends

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



In our survey, respondents indicate a slight uptick in projected investments in IT in 2017, when compared to 2016. We still shouldn't expect the growth from a few years ago, when organizations were catching up on deferred purchases from the recession. For the past several years, more and more respondents indicate they are maintaining a steady investment in IT, which is an indication that they are likely maintaining more regular refresh programs that allow for more consistent investments in IT.

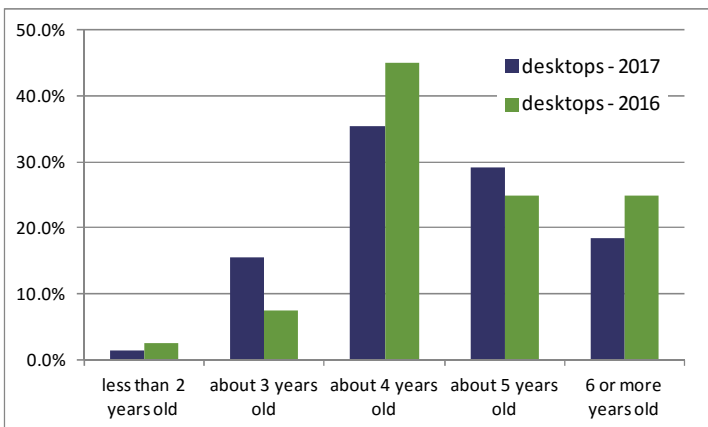
What percentage of employees in your organization are using smartphones provided by . . .



While it seems like smartphones are everywhere, not every worker has a business phone in their hands. Our survey shows a continued increase in the adoption of smartphones in the workplace, but less than half of workers are expected to use one for work (this is especially the case in manufacturing and healthcare industries).

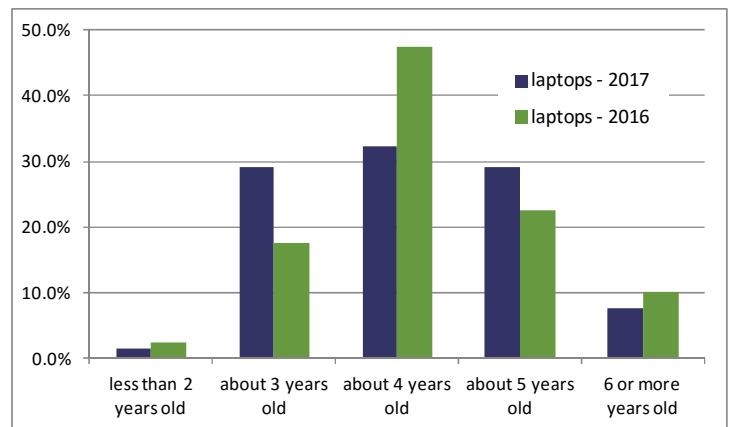
More aggressive refresh rates

How old are the majority of desktops you expect to retire in 2017 (compared to 2016)?



During this year's survey, respondents indicate a more aggressive refresh rate for both desktops and laptops. In general, equipment is expected to be replaced quicker, possibly due to the need to keep up with business demands.

How old are the majority of laptops you expect to retire in 2017 (compared to 2016)?



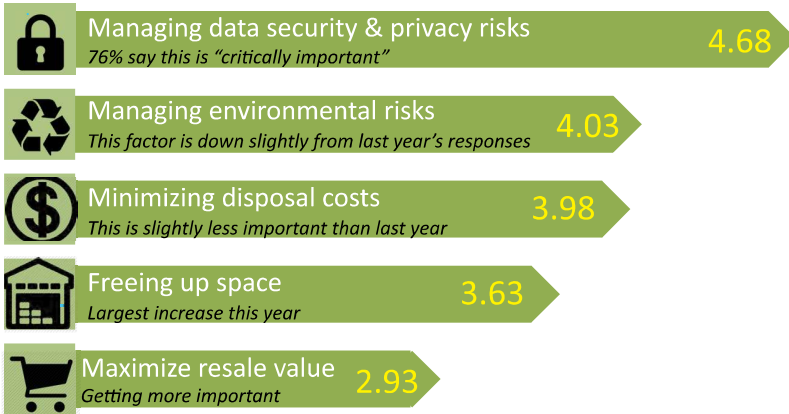
The laptop refresh rate plan shows a wider distribution of equipment expected to be retired from use. We are also seeing significantly more three year old laptops entering the retirement process. Laptops are refreshed more rapidly than desktops.



IT Asset Disposition Priorities

How important are the following considerations when disposing of your IT assets?

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



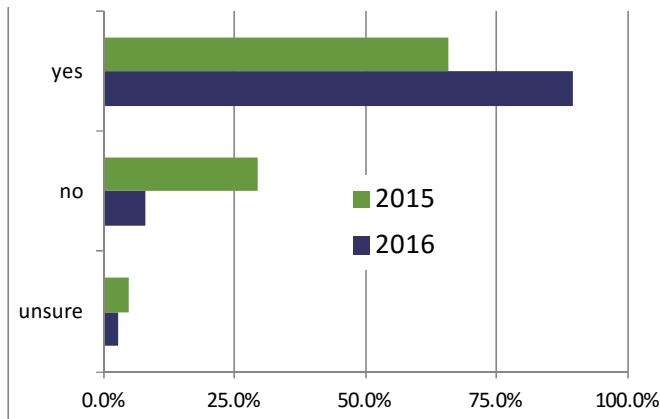
While there are many issues to consider when setting up and managing an asset disposition program, we've found that people responding to our surveys consistently rank these five criteria in the same order year after year. "Security" is always the number one consideration for people setting up and managing ITAD programs.

This most recent survey did see an increased interest in "freeing up space" and "maximizing resale value." As the ITAM programs at organizations mature, we believe that they can focus more on the value added components of IT asset disposition and not just worry about setting up programs that mitigate risk.

Security Policies

Many industries are regulated by some type of Privacy Protection Rule such as HIPAA or FACTA. Firms are also audited to voluntary standards requiring that the organization have a robust security policy and an effective program in place to destroy data on retired devices.

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



We asked respondents what is included in their security policy related to ITAD. The checklist to the right lists their responses.

Every item on the checklist should be included in a company's data security policy and program. Most importantly, employees are expected to be informed and trained on the policy. Keeping a signed acknowledgment of the policy on file is the best way to demonstrate to auditors that you took reasonable efforts to train staff, which will prevent compliance fines and should also mitigate potential data breaches.

What's included in your ITAD security policy?

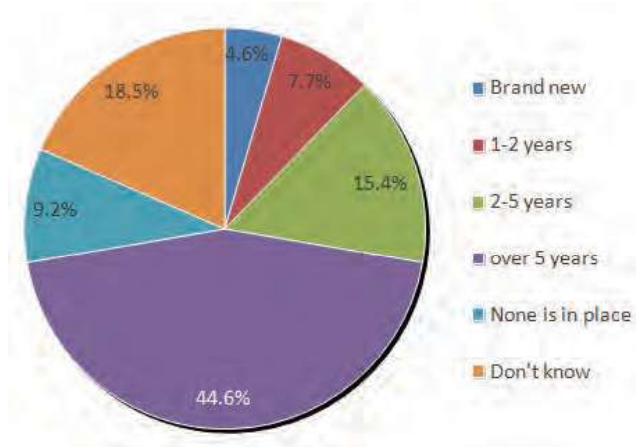
- ☒ Employee training. 20.0%
- ☒ Data destruction on employee mobile devices (BYOD issues) 12.3%
- ☒ Sale of equipment to employees. 26.2%
- ☒ Employee acknowledgment of policy 21.5%
- ☒ Re-purposing assets internally. 47.7%
- ☒ Company-owned mobile devices 52.3%
- ☒ Specifying a wiping standard for the sanitization of assets 69.2%
- ☒ Disposition of assets to 3rd party (such as Cascade) 78.5%
- ☒ Return of assets to a leasing company 35.4%
- ☒ Donation of assets to charity. 30.8%
- ☒ Return of damaged/warranty return items to a manufacturer or distributor 24.6%



Download our free Data Security Template and learn more about setting up compliant programs.

Developing your ITAM/ITAD program

How long have you had an ITAM program in place?



Effective IT asset disposition 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.

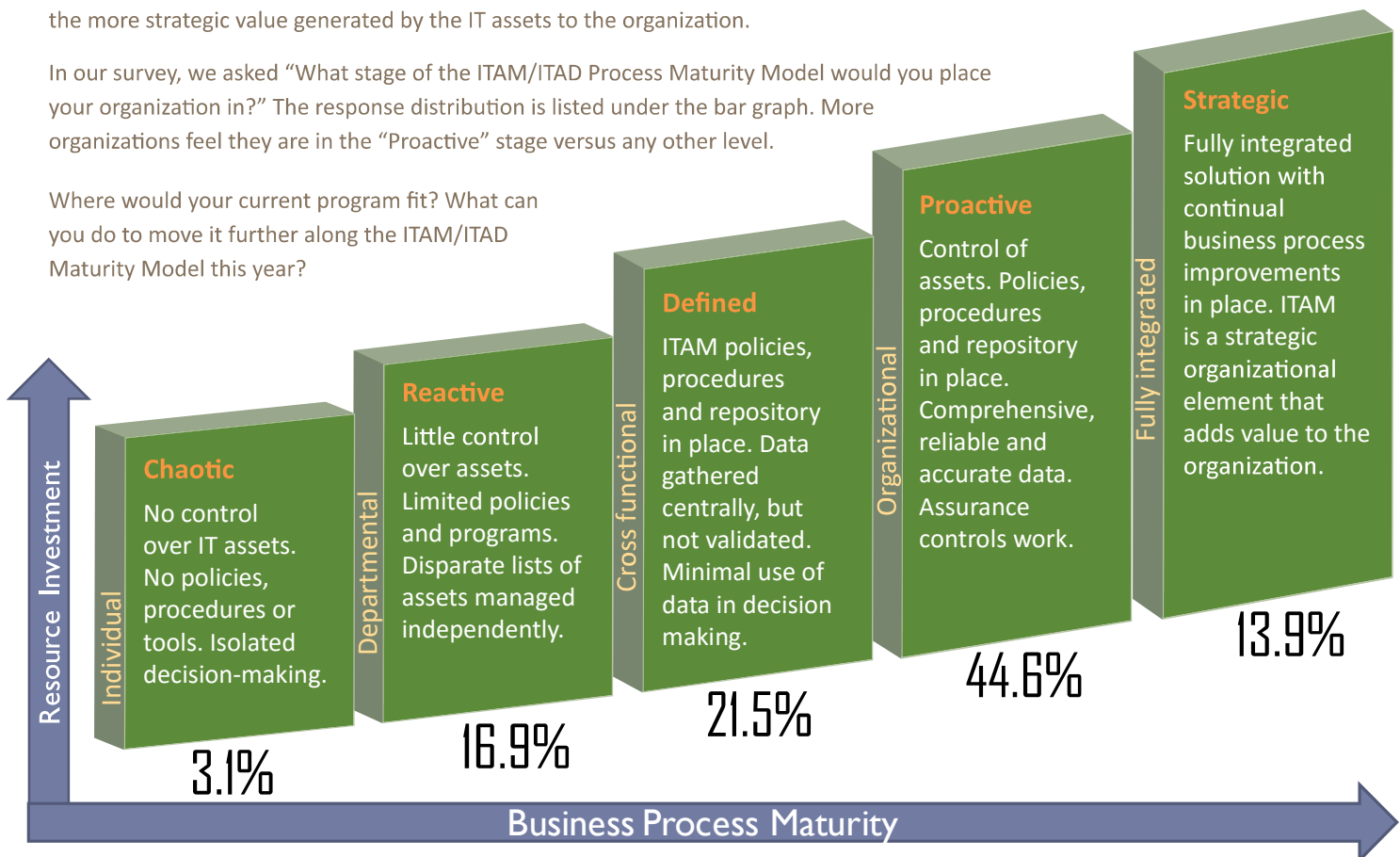
Most of our survey respondents indicate they've operated a coordinated ITAM program for more than two years.

ITAM/ITAD Business Process Maturity Model

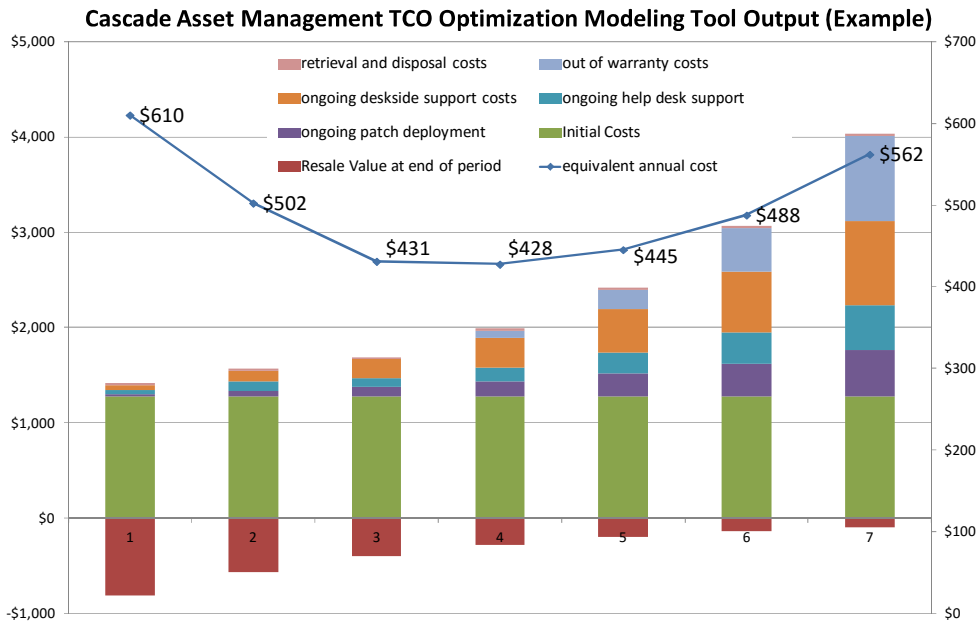
Organizations find themselves in different development stages of their IT Asset Management and Asset Disposition programs based on the complexity of their systems and the resources they can allocate to this process. These different stages are illustrated in the graph below. Ideally, the further along an organization is in the maturity model, the less security risk to the organization (from loss of assets or loss of data on assets), the lower the total cost of ownership of Information Technology in the organization, and the more strategic value generated by the IT assets to the organization.

In our survey, we asked "What stage of the ITAM/ITAD Process Maturity Model would you place your organization in?" The response distribution is listed under the bar graph. More organizations feel they are in the "Proactive" stage versus any other level.

Where would your current program fit? What can you do to move it further along the ITAM/ITAD Maturity Model this year?



Determining the optimal refresh rate - using the “Equivalent Annual Cost” Model



The best way to optimize the value of your IT assets is to consider their entire lifecycle benefits and costs.

First, understand the value the assets provide to your organization, employees and customers. When IT assets are productive and well suited for their role, they demonstrate a positive impact.

Then, identify the costs to purchase, maintain, and dispose of those assets. The value generated from the resale of working excess assets helps to offset these costs.

Taken together, you can determine the optimal refresh rate that results in the lowest average annual cost for your IT assets.



Determine the optimal refresh rate for your assets by using Cascade's TCO modeling tool. Download it for free on our website.

Elements of a successful ITAM program

- 1 UNDERSTANDING**
Identify and define the requirements and goals of the organization.
- 2 MULTI-STAKEHOLDER**
Involve all affected parties in the development and implementation.
- 3 POLICIES**
Establish policies consistent with goals and requirements.



- 4 TOOLS**
Procure and apply tools to manage assets throughout their lifecycles.
- 5 TRAINING**
Train staff and hold them accountable to policies and expectations.
- 6 PROCESSES**
Implement process to evaluate and continually improve the system.
- 7 INTEGRATED**
Integrate solutions with providers to benefit from their additional resources.

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. Over 76% of survey respondents report they perform some type of data sanitization/destruction process on their hard drives before handing them over to their ITAD provider for final destruction (this is up from 44% in 2015). Still, many continue to use less effective destruction processes like drive formatting.

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

format the hard drives	34%	degauss the hard drives	8%
encrypt drives	32%	punch hole through drives	7%
wipe using free software	32%	shred the drive	8%
3-pass "DoD" wipe	36%	track with Computrace	3%
1-pass "NIST" wipe	3%	hit the drive with a hammer.	7%

Cascade recommends all organizations adopt appropriate methods of media destruction based on the NIST 800-88 Guidelines for Media Sanitization and consistent with their tolerance for risk. This may include performing some sanitization/destruction of media at your facility, setting up a secure chain of custody of the media to the final processor, and assuring that all data are properly destroyed and accounted for by the processor.



Read more about how NIST 800-88 Guidelines for Media Sanitization can help your organization secure its data.

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 and responses are virtually identical to last year's survey, though this is the first year a majority of respondents have sanitization programs in place.

Do you have an internal process in place to destroy data on smart phones, tablets and SSDs?

No
42.4%

Yes
57.6%

How can responsible ITAM/ITAD help prevent a data breach?

Proper controls and due diligence are essential for reducing the risk of a loss of data. Here are the essential elements of security program:

- Perform a **security risk analysis** to identify threats.
- Develop and implement a robust **security policy** that addresses how data on assets is secured and eventually destroyed. Then train staff regularly on the policy.
- Perform due diligence on your ITAD provider. Visit them, verify their controls and/or ensure they are audited by an independent security certification program like NAID.
- Execute and regularly review a service agreement with your ITAD vendor (a BAA is required for Covered Entities)
- Have access to disposition records or Certificates of Destruction - if you are audited, you may need this as evidence your data was properly destroyed at disposition.



See a list of published data breaches and compliance actions related to data security.

187

Data Breach

incidents were reported to OCR by Covered Entities in 2016

<https://ocrportal.hhs.gov/breach>

4

Million Dollars

is the average consolidated total cost of a data breach in 2016

<https://securityintelligence.com/cost-of-a-data-breach-2016/>

30

Million People

have been affected by a breach from loss, theft or improper disposal at a Covered Entity between 2010-2016

<https://ocrportal.hhs.gov/breach>

5.9

Billion Records

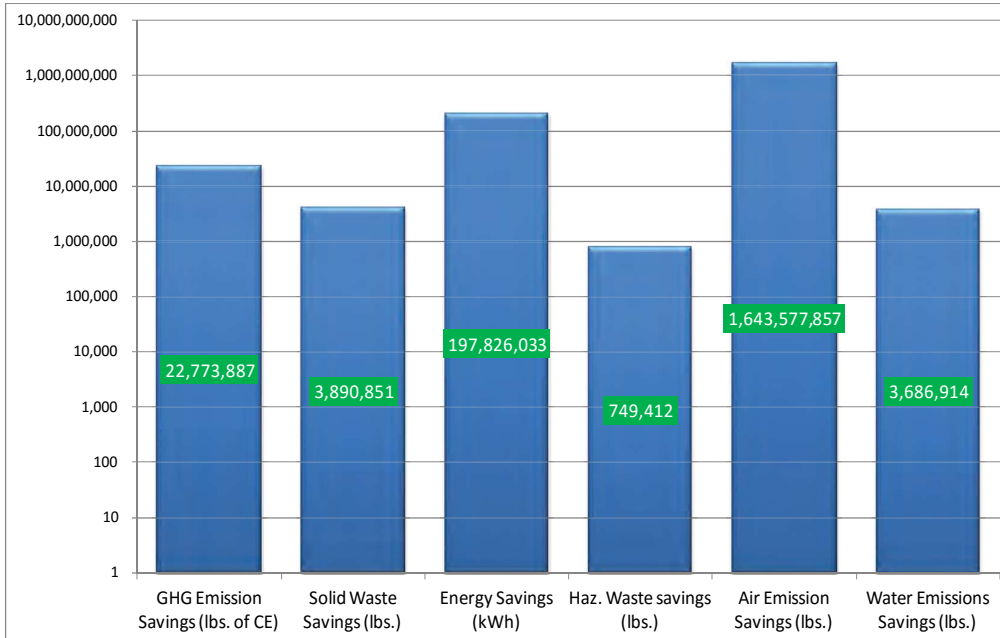
have been lost or stolen world-wide due to data breaches between 2013-2016

<http://breachlevelindex.com/>

Environmental Issues

Environmental benefits of electronics reuse and recycling by Cascade

IT equipment received from all customers in 2016



The reuse and recycling of electronics by Cascade and its customers had the equivalent environmental impact of . . .



saving enough energy to power 16,534 typical U.S. homes



removing 6,936 passenger cars from the road for 1 year



keeping 11,387 tons of carbon out of the atmosphere



Calculate your own environmental impact of electronics reuse and recycling.

Transparency in asset disposal

Over the past two years, the Basel Action Network (BAN is a non-profit environmental watchdog organization) placed electronic GPS tracking devices (see top photo) into 205 old printers and computer monitors and watched where they traveled across the globe. These electronic devices made their way through 168 different recycling centers across the U.S.



Over 45% of these companies were part of a recycling chain involved in shipping the tracked electronics offshore where BAN was able to see some of them firsthand (see bottom photo) in illegal scrap yards in Hong Kong and other developing countries.



MIT put together an animated website showing the overall movement of the tracked devices. It's likely these GPS trackers will continue to be used in the industry to hold recyclers accountable.



Read the report, see the MIT tracking site and find out what happened to the LCD monitor dropped off at Cascade.

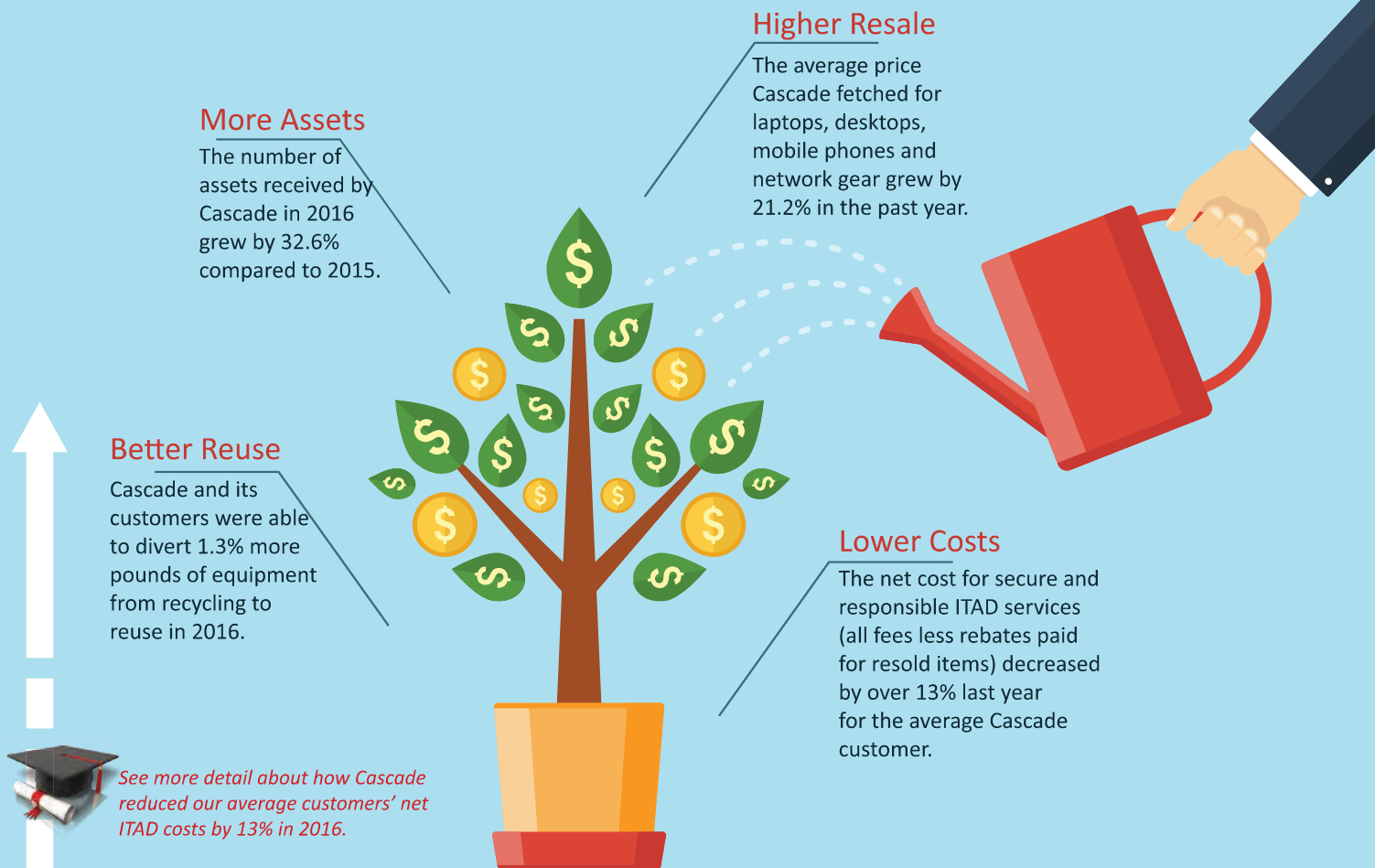
Bankruptcies leave abandoned e-waste

2016 was a tumultuous year in the ITAD and e-scrap industry. A number of firms went out of business. Global Environmental Services left behind warehouses of CRT glass in Kentucky and Texas when it filed bankruptcy earlier last year. Diversified Recycling in Florida filed for Chapter 7 bankruptcy after the e-Stewards program suspended their certification once it was discovered the company sold non-working electronics to overseas buyers and improperly processed leaded CRT glass. At the end of the year, 5R Processors, with facilities in Wisconsin, Tennessee and Georgia also left behind warehouses full of unprocessed electronics and they are under investigation by the EPA.

Also, a Midwest electronics recycling executive was arrested in December and faces up to 20 years in prison for allegedly lying to clients to generate large sums of money and using company funds for gambling and other personal expenses.

Enterprises are starting to be held accountable if they send electronics to recyclers not capable of processing these devices sustainably. There are several cases in California when firms like AT&T and Comcast have been fined millions of dollars for illegally disposing of e-scrap.

Maximizing Value



Partnering to increase value

Cascade actively collaborates with our customers to improve resale recovery values and decrease their overall costs. Cascade and our customers work together to quickly get these unproductive assets refurbished and sold before they lose any more value. Items are handled in a way to preserve their resale price and reduce damage. Cascade technicians repair and rebuild items to resellable condition when feasible. Passwords and iCloud access privileges are identified and cleared to allow for resale. These activities, and an aggressive and robust resale program, have allowed Cascade to reduce the overall net costs for our Safe & Sound ITAD services year after year.

Contact Cascade for further assistance.

Safe & Sound® IT Asset Retirement Since 1999.

Learn about Services



www.cascade-assets.com/solutions

✉ info@cascade-assets.com

📞 608.316.1606

Schedule a Pick-up



www.cascade-assets.com/pickup

✉ pickup@cascade-assets.com

📞 608.222.4800

"Professional staff and services, Cascade is a wonderful company to work with for asset disposals."

*Missy Setzer
IT Operations Manager
Mission Health Systems*

