



**Secure and ethical hard drive
data erasure.
Is your end of lifecycle IT
equipment your weakest link?**



Tier 1 Asset Management Ltd.
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In every industry, IT departments face increasing pressure to assure the confidentiality of corporate and client data. This confidentiality has always been an issue of ethical concern, but legislation to protect the privacy of individuals' records has made it become a legal concern as well.

Whilst you will have a strategy in place for securing information within your networks, there comes a day when a desktop PC or laptop is retired from active service and that is when an IT department can lose control over protecting the confidentiality of the company's and individuals' data. Provisions and controls need to be established to ensure that the data on those retired hard drives cannot be made available to others. When an IT asset leaves the premises to be disposed of, this presents a different set of challenges and exposures. In this brief paper, we lay out some of those challenges and attempt to demonstrate the value of third party disposal.



Recycling of computers and other IT equipment

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An increasing number of computers are coming offline every day, and more and more are being recycled than ever before. The fact that more are being recycled than most people ever expected is symptomatic of the uncertainty that most IT Directors face when challenged with the question of, "What's next in end of life-cycle IT management?"

As technology has matured, so too has the overall climate in which businesses operate. In response to the rapid evolution of technology during the past several years, organizations' IT infrastructures, vendors' business strategies and government bodies' expectations of businesses' responsibilities have undergone significant changes. For example, failure to comply with increasingly prevalent government mandates regarding how companies should conduct business and safeguard the personal data they collect can result in substantial fines and criminal prosecution.

As the value, risks and accountability for IT assets have risen on many organizations' strategic priority lists, so too has the need for industry-accepted best practices for dealing with those assets. However, what is considered a best practice today may change as our environment changes.

According to a Carnegie-Mellon study, it was predicted in 1991 that 150 million computers would be sent to landfills by 2005. However, the growth of the computer recycling industry since then has changed that number in a very significant way. The new prediction is that by 2007, 150 million computers will be recycled, as opposed to being sent to landfill. These systems are not being scrapped as was originally predicted, but are continuing to function in the IT environment.

It appears, however, that this prediction will be exceeded. Gartner Dataquest research says that roughly 150 million used hard drives were sold via secondary sales markets last year, while at the same time, about 200 million new hard drives were shipped. That means that for every ten new hard drives that enter the market, seven used ones are resold.

Why is this happening? The economic climate has created an incentive to finance new equipment, certainly. In addition, IT technology has advanced to a point at which older machines still continue to command reasonable prices. Even today, a second user Centrino laptop with 2GHz processor can generate a return of £215. With greater value recovery, asset liquidation becomes increasingly attractive.



Continued use of recycled IT assets

Users reformat their hard drives, sometimes believing, incorrectly, that data is destroyed in the process.

Many business, either large or small, and indeed individuals liquidating their computers or returning them at end of lease do so with little thought as to the data contained on the hard drive. They simply delete their files before giving up the machines. Users reformat their hard drives, sometimes believing, incorrectly, that data is destroyed in the process.

One major reason for this incorrect belief is the rather frightening message that may appear in Windows warning that "ALL DATA ON DRIVE C: WILL BE LOST." Secondly, and perhaps on a more basic level, another reason for believing that reformatting actually deletes data is that this process audibly exercises the hard drive mechanism and takes a long time. Finally, the word 'format' implies that something else is being constructed, as if the hard drive were a farm and we were magnetically re-ploughing the fields into new rows.

Essentially, all the warning message tells us is that we can't get the data back with our existing tools. The whirring and clicking during format is just a thorough scan for bad sectors, and formatting itself is simply writing a new directory, tables, blocks and sectors.

If proof be needed of the misinformed actions of IT Departments, researchers at the University of Glamorgan bought and scanned 300 used hard drives this year and found that 49% contained personal information and 47% had corporate data. Among the data was an employee database for Vodafone, business strategy documents for a German truck company, and the embarrassing detail that a contractor bidding to build a U.S. Navy destroyer is also a transvestite!

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Choosing the right technology

The only way, other than destruction and scrap, to prevent this inadvertent file sharing is to sanitise the hard drive before it reaches its next owner. Tier 1 have partnered with Blancco, the world's leading data erasure organisation to use their technology. This solution not only conforms to the highest standards and regulations, but also exceeds legislative requirements, including INFOSEC 5 and US Department of Defence 5220.22-M. By using this advanced erasure technology, you can protect your company's hard-earned reputation or your organisation's trustworthiness by preventing confidential information from falling into the wrong hands. Blancco technology ensures a secure erasure and provides detailed reporting required to meet today's government, industry and vendor privacy, and security mandates mitigating 100% of the exposure to legal liabilities or loss of corporate assets. In addition, more than 10 erasure standards are supported which include the US DOD 5220.22-M, Bruce Schneier's algorithm and Peter Gutmann's algorithm. Data which has been erased by Blancco cannot be recovered with any existing technology, and this is the claim by which they stake their reputation by which they stand or fall.



Measuring the financial impact

There are two critical factors that organisations need to consider when making a decision about hard drive erasure processes. Cost and risk.

In some cases, the cost of running sanitisation processes on a company's entire estate of computers can be prohibitive, and even in smaller organisations, the number of hard drives that need to be erased can be unmanageable. Most IT Departments do not have the hours or staff to accomplish such a task without impacting on their core functions within the business. Should a company choose to circumvent these costs and simply destroy their hard drives, many of which could be reused, they are disposing of equipment that still has market value, even if their method of disposal is environmentally sound.

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At the same time, risk is probably one of the major influences on a company's actions, as most organisations are aware of the significant issues associated with breaches of private information. When a corporate organisation does not properly sanitise existing data storage devices, they expose themselves to a whole host of legal, public relations and business repercussions should any information be leaked. It is the duty of the head of IT Departments to act quickly to adopt and implement appropriate hard drive data erasure policies.

Cost and risk reduced

It is possible that the most convenient option of disposing of IT equipment is to turn it over to a reliable and established third party asset disposal specialist. With privacy laws, environmental legislation and data recovery technology in a constant state of development and change, demonstrable compliance may ultimately be built on diligence in the selection and application of tools and associated suppliers.

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The two main factors to consider are:

- the need for documented diligence and a transparent audit trail of the process
- the need to be completely confident that the computers and equipment that you no longer need do not become liabilities because of improperly erased or un-sanitised hard drives

Tier 1 is aware that what our clients do today may be scrutinised tomorrow. This confirms that long term viability is an important characteristic to consider. In short, your choice of third party for secure data erasure should be based on your confidence in that supplier's technical capabilities, integrity as an organisation and staying power over the long haul.



Outsourcing the supply of secure data erasure

The question of how to balance cost and risk has many organisations looking for outside help for this service. For a growing number of companies, the answer is to outsource their entire end of life-cycle IT programme, helping them achieve three major goals;

For a growing number of companies, the answer is to outsource their entire end of life-cycle IT programme.

- appropriate and secure data erasure
- avoidance of cost and mitigation of risk associated with in-house erasure and disposal
- the extraction and collection of residual value from equipment with further useful life

Tier 1's resolution to an organisation's end of life-cycle IT offers a failsafe solution to all of these issues and more.

In addition to offering guaranteed data erasure security and providing market-leading revenues through our proven channels and routes to market, our services also include a fully auditable trail of all equipment that we deal with, including that which may be classified as 'hazardous waste.' Full certification is provided for equipment that cannot be re-used, and our service frees up valuable space by removing redundant technology from a company's estate.

Furthermore, Tier 1 provide added value in the form of robust corporate social responsibility acknowledgement. Our links with the UK's technology charity, Digital Links, ensures that you are provided with a good news PR story by having your end of life IT equipment put to priceless re-use in the developing world. These all afford organisations with valuable recognition – as well as a zero cost solution - in a world of increasingly powerful ethical consumerism.

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Taking the next step

Hard drive data security is a significant and important element in the end of life-cycle IT process. However, it is just the beginning of the asset disposal challenge. Your equipment still needs to be catalogued, collected, stored and re-sold or destroyed. Many companies have found that Tier 1's service for the entire disposal process is convenient and cost-effective. We even have instances where companies have even traded their equipment – and the headaches of disposal – for a fair market value, less reasonable management fees.



Conclusion

The most effective and convenient outsourced agreements also provide cost effective re-sale and disposal services in an ethical and environmentally friendly manner.

Every business must evaluate its strategies for secure data erasure to be sure that they are not just compliant, but airtight. With the law providing ever stricter standards of data confidentiality, there is no way to predict what data recovery tools will be widely available in the future, nor the exact nature of future legislation. You can be sure, however, that organisations will be held accountable for protecting confidential data by their shareholders, customers, employees and the media.

Most companies do not have the time or resources to guarantee the secure data erasure of large numbers of hard drives and so choose a third party to provide this service for them. The most effective and convenient outsourced agreements also provide cost effective re-sale and disposal services in an ethical and environmentally friendly manner.

You must reasonably expect the following in your disposal partner:

- technical capability
- reliability and integrity
- accurate documentation
- staying power with demonstrable past success
- an ethical framework within which to work
- a proven model for final asset disposal

When you find all these qualities in a partner that you are comfortable with, you can rest assured that you – and your customers – are safe.

For more information

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This paper is for general guidance only and information is subject to change without notice. Please contact Tier 1 for our latest information or with any enquiries about the process of end of life-cycle IT equipment.

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