

Data Destruction Demystified:

UNDERSTANDING STANDARDS AND CERTIFICATIONS



This document is designed to provide a basic understanding of data destruction and the importance of the industry's compliance with The National Institute of Standards and Technology (NIST) publication 800-88.

Executive Summary

When an individual or company makes the decision to upgrade their computer network, the older equipment is often restructured to work in another area of the business, sold on the secondary PC market, donated to charity or otherwise destroyed. In any of these scenarios, it is of the utmost importance that the existing data residing on the hard drives of these computers be effectively erased (sanitized).

But, how can IT managers and/or CIOs be sure that their company's sensitive data is being properly destroyed?

NIST publication 800-88 – states the minimum requirements for an effective data destruction policy.



NIST publication 800-88

NIST describes disc sanitization as “the removal of data from storage media so that, for all practical purposes, the data cannot be retrieved.” Currently, there are three primary methods recognized as effective for disc sanitization – overwriting, degaussing and physical disc destruction.

- **OVERWRITING** – Overwriting consists of using software to write (1s, 0s, or a combination of both) onto the media where the file to be sanitized is located. The number of times this is performed is relative to the sensitivity of the information being sanitized.
- **DEGAUSSING** – Two types of degaussing machines exist – electric and strong magnet. Degaussing machines are tested by the Department of Defense and those that meet their standards are placed on the Degausser Product List (DPL) of the National Security Agency’s (NSA) Information Systems Security Products and Services Catalogue.
- **DESTRUCTION** – In NCSC-TG-025, the approved methods of disc destruction include:
 - Disc shredding (most common method of physical disc destruction)
 - Destruction at an approved metal destruction facility, i.e., pulverization, smelting or disintegration
 - Application of concentrated hydriodic acid
 - Application of acid activator Dubais Race A (8010 181 7171) and stripper Dubais Race B (8010 181 7170)
 - Application of an abrasive substance

FAQ

What Does It Mean to Be NIST 800-88 Certified?

Currently, there are no “certifications” based on NIST 800-88 guidelines. The guidelines are a set of standards that are recommended by the National Institute for Standards and Technology to ensure the proper sanitization of sensitive data from recordable media or the physical destruction of the disc.

How Do I Know if the IT Asset Management Company I Choose

Adheres to NIST 800-88?

To ensure that the company you choose for your disc sanitization/destruction needs follows the NIST 800.88 guidelines, verify that they have or can provide:

- An errors and omissions insurance policy (minimum of USD 1 million)
- An auditable report of the disc sanitization and/or destruction including serial numbers and Asset ID/username
- Chain of Custody documentation

Are There Industry-Specific Regulations for Data Destruction

Above and Beyond NIST 800.88 Standards?

Industries that utilize sensitive customer information normally have a set of regulations that need to be adhered to in terms of destroying that data. These regulations need to be adhered to in addition to the NIST 800-88 standards. Examples include:

- FACTA (Fair and Accurate Credit Transactions Act)
- GLB (Gramm-Leach Bliley) - banking and financial institutions
- HIPPA (Health Insurance Portability and Accountability Act) - the healthcare industry
- PCI DSS (PCI Data Security Standard)
- SOX (The Sarbanes-Oxley Act)
- CAL SB1386 (The California Information Practice Act)

Are There Differences Between D.O.D. 5220.22-M and NIST 800-88?

The primary difference between the two standards is recognized in how many passes are required to prevent data disclosure. D.O.D. 5220.22-M states very clearly that three passes must be conducted to sanitize the disc, whereas NIST 800-88 indicates that one pass is often effective enough to defy conventional forensic recovery on modern hard discs.

Summary

In summary, effective data destruction needs to follow a specified set of guidelines to properly prevent secure or sensitive information from getting into the hands of unauthorized individuals.

And, while many industry professionals may claim to be certified by the Department of Defense or National Institute for Standards and Technology, it is extremely important that the end-user understand the protocol that is required for compliance with the guidelines presented by the NIST. While there is no-such current certification, a quality Asset Management company will be compliant with government mandates and requirements for the sanitization and/or physical destruction of recordable media.

Liquid Technology Certifications

- Liquid Technology is certified in the most recent R2:2013 Standard, meaning that we meet the latest requirements for certification.
- Liquid Technology is certified under the e-Stewards 4.0 Standard. This means we are in full compliance with the most current industry standards.
- Liquid Technology is ISO 14001 certified, meaning that we meet the guidelines outlined in ISO 14001.
- Liquid Technology is ISO 45001 certified, meaning that we provide our workers with the safest workplace environment possible, thereby reducing injuries and illnesses as well as mechanical downtime.
- Liquid Technology is NAID certified, meaning we need or exceed NAID's standards and guidelines.

For more information about responsibly recycling old IT equipment through an experienced, EPA-compliant computer recycler, contact Liquid Technology at 1-800-797-5478 or visit us on the web at www.LiquidTechnology.net.



Want to find out more about what Liquid Technology does?

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