

Office of Technology Services Technical Standard / Procedure

Data Sanitization

Definition:

Electronic media is defined as any type of device that stores, retrieves, transmits, or receives electronic information.

Electronic Media	Procedure(s)
Equipment	
Copy Machines	l or m
Fax Machines	l or m
Multifunction Devices	l or m
Printers	l or m
Hand-Held Devices	
Cell Phones	l or m
Personal Digital Assistant	l or m
Smart Tablets	l or m
Magnetic Tape	
Type I*	a, b, or l
Type II**	b or l
Type III***	l
Magnetic Disk	
Floppies (e.g., 3.5 inch, zip disks, etc.)	a, b, d, or l
Non-Removable Rigid Disk (e.g., hard drives)	a, b, d, or l
Removable Rigid Disk	a, b, d, or l
Optical Disk	
Read Many, Write Many (e.g., CD-RW)	l
Read Only	l
Write Once, Read Many (e.g., CD-R, CD+R, DVD+R)	l
Memory	
Dynamic Random Access Memory (DRAM)	c, f, or l
Electronically Alterable PROM (EAPROM)	i or l
Electronically Erasable PROM (EEPROM)	g or l
Erasable Programmable ROM (EPROM)	k, then c or l
Flash Memory (FEPRM) (e.g., USB Drives, xD cards)	c, h, or l
Programmable ROM	l
Magnetic Bubble Memory	a, b, c, or l
Magnetic Core Memory	a, b, e, or l
Magnetic Plated Wire	c or l
Magnetic Resistive Memory	l
Nonvolatile Ram (NOVRAM)	c, f, or l
Read Only Memory (ROM)	l
Static Random Access Memory (SRAM)	c, f, or l
Solid State Drive (SSD)	l or m

Office of Technology Services Technical Standard / Procedure

Networking Devices

Routers	1 or m
Switches	1 or m
VOIP	1 or m

Sanitization Procedure Key

- a. Degauss with a Type I degausser.
- b. Degauss with a Type II degausser.
- c. Overwrite all addressable locations with a single character.
- d. Overwrite all addressable locations with a character, its complement, then a random character and verify.
- e. Overwrite all addressable locations with a character, its complement, and then a random character.
- f. Remove all power to include battery power.
- g. Overwrite all locations with a random pattern, all locations with binary zeros, all locations with binary ones.
- h. Perform a full erase as per manufacturer's data sheets.
- i. Perform h. above, then c. above, three times.
- j. Perform an ultraviolet erase according to manufacturer's recommendation.
- k. Perform j above, but increase time by a factor of three.
- l. Destroy – disintegrate, incinerate, pulverize, shred, or melt.
- m. Contact the manufacture for proper sanitization procedure

- * Type 1 Magnetic tape includes all tapes with a coercivity factor (amount of electrical force required to reduce the recorded magnetic strength to zero) not exceeding 350 oersteds.
- ** Type 2 Magnetic tape includes all tapes with a coercivity factor between 350 and 750 oersteds.
- *** Type 3 Magnetic tape commonly referred to as high-energy tape (4 or 8mm tape are examples), includes all tapes with a coercivity factor between 750 and 1700.

Sanitization Log

Once a device or media unit has completed the selected sanitization procedure, a log containing the information below shall be created and maintained.

Sanitization Log Entry shall include:

Media or device type, sanitization procedure used, manufacture unique ID (ex. SN, EEID, etc.), date of sanitization, end result (success or failure), and name of person who performed the sanitization.

If the selected sanitization procedure did not complete successfully, an alternate sanitization procedure should be used if listed.

If the device or media unit cannot successfully complete an approved sanitization procedure, please contact OTS for additional guidance.

Related Policies, Standards, Guidelines:

Office of Technology Services Technical Standard / Procedure

IT POL 1-04 Data Sanitization

References:

US Department of Defense 5220.22-M Clearing and Sanitization Matrix
NIST Special Publication 800-88 Guidelines for Media Sanitization

Owner: OTS

Review Cycle: As needed.

Timeline: Issued July 27, 2009; Revised October 21, 2014.

Effective Date for this Provisional Standard: October 21, 2014