

## Office of Information Technology Technical Standard / Procedure

### Data Sanitization

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Media	Procedure(s)
<b>Magnetic Tape</b>	
Type I*	a, b, or l
Type II**	b or l
Type III***	l
<b>Magnetic Disk</b>	
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
<b>Optical Disk</b>	
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
<b>Memory</b>	
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

### Sanitization Procedure Key

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- 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.

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*This information was extracted in part from the US Department of Defense 5220.22-M Clearing and Sanitization Matrix.*

- \* 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.

### **Related Policies, Standards, Guidelines:**

IT POL 1-04 Data Sanitization

### **Owner:**

OIT Security Office

### **Effective Date:**

July 27, 2009