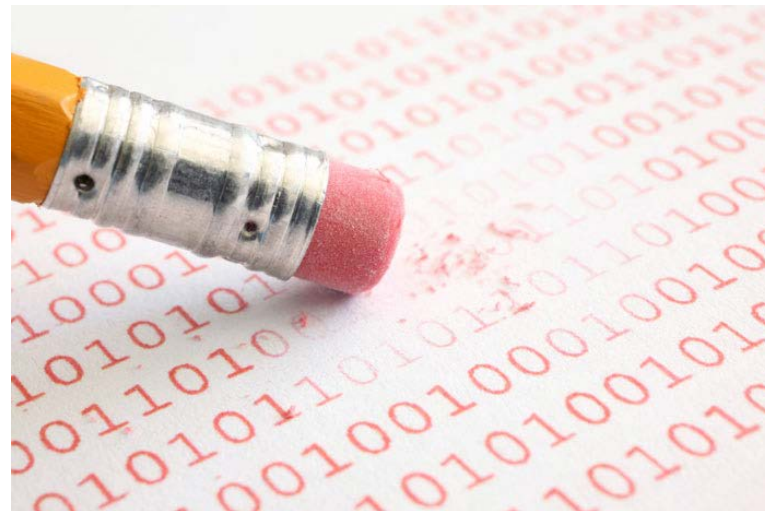


Erasure Verification of SSD's

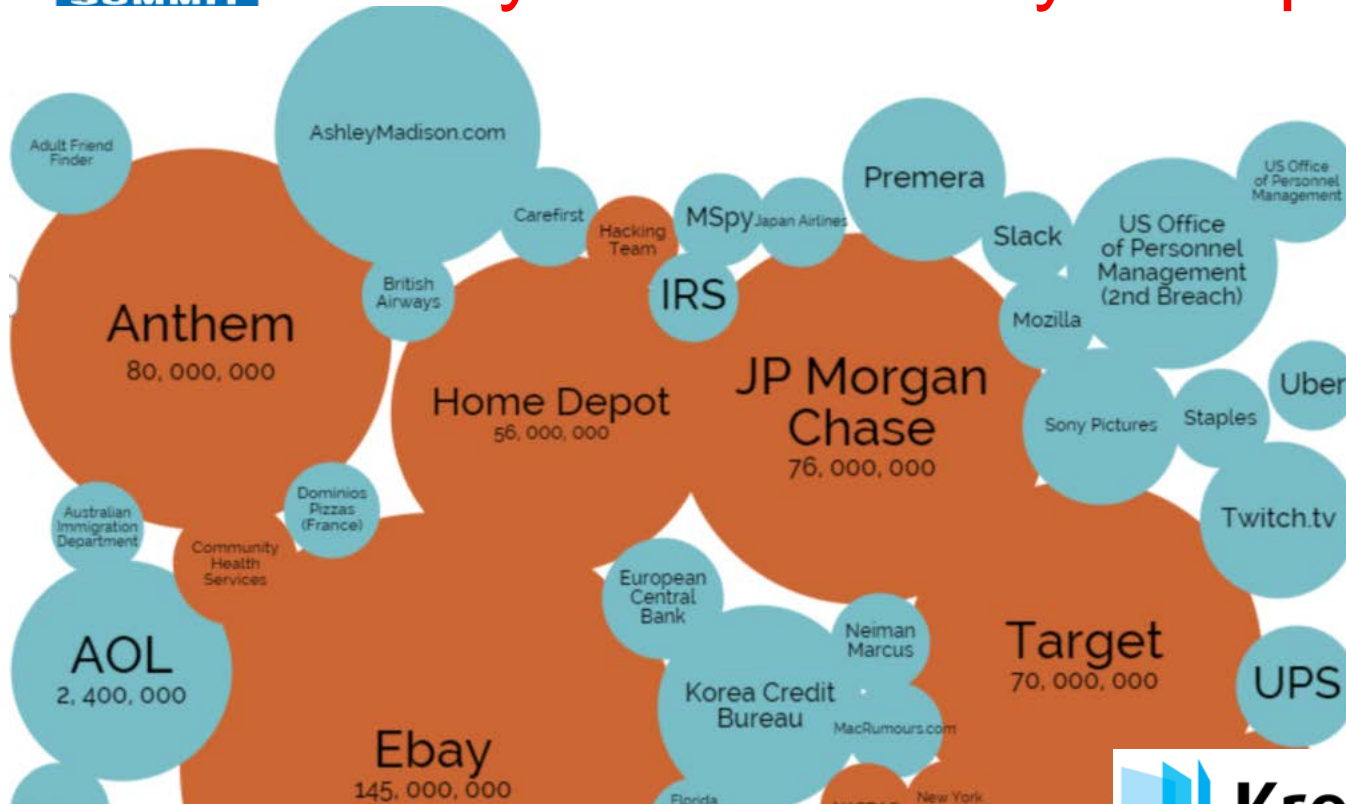
Theodore Persing
Software Engineer
Kroll Ontrack, Inc.

Data Erasure/Sanitation

- Irreversible
- Unrecoverable
- Non-destructive
- Verifiable



Why Data Security is Important



<http://www.informationisbeautiful.net/visualizations/worlds-biggest-data-breaches-hacks/>

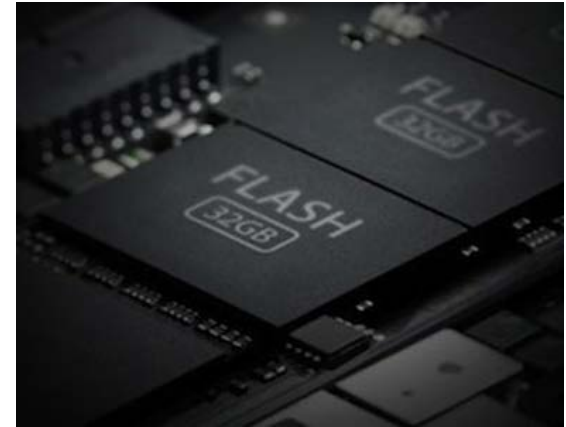
What is Erasure Verification?

- Third Party Validation of Erasure



Two Types of Verifications

- Standard Interface
 - SATA, SAS, PCI-e, etc.
- NAND Chip Removal



Who Uses It?

- Recyclers
- Resellers
- Drive Manufacturers
- Major corporations



How do you measure success?

- Is the data recoverable at:
 - Logical Level?
 - Using vendor unique commands/firmware hacks?
 - Direct physical access?

CASE STUDY

Kroll Ontrack/Micron Partnership Identifies Problems Before They Happen

Third party erasure verification service assists manufacturer in adding data security

Raw Chip Analysis

- Desired Results:
 - “Fresh out of Box” configuration
 - Majority of areas pattern filled
 - Some SSD system data
- Actual Results:
 - Majority of areas pattern filled
 - Some SSD system data
 - Minor amount encrypted unrecoverable data

Cause/Resolution

- New safeguards introduced



Summary





Thank You!

Please visit us at booth #821