



Certified Data Erasure
Cyber Security in Digital Single Europe
25 March 2014, Bucharest





Must haves

A data categorisation process?

A data security process?

An auditable trail for all data and hardware?

Control over your data in transit

A robust, auditable EoL process for hardware?



What Is Data ?

Records

Information

Digital

Physical



USB Stick download

More than 6,000 prisoners and ex-inmates had their personal medical details exposed by the loss of a memory stick

Although the lost USB flash drive was encrypted, *the password was on an attached note.*

- *Naked Security*



Who Is Responsible

The current ICO maximum penalty is £500,000, this is to change to **2% of Global Annual Turnover**
Impending changes will require self reporting of serious breaches within 24 hours
Data does not have to be lost, just the Chain of Control compromised

Can levy fines for data breaches
Max £500,000 per breach
Require robust process
Chain of Control
Require self reporting
Ignorance is NOT bliss





The Penalties

NHS trust challenges £325,000 fine over data protection breach Hard drives with patient data stolen while under contractor's care

Hard drives belonging to the trust were stolen while they were under the responsibility of a contractor.

Sussex Health Informatics Service, the contracting company, was responsible for disposing of the hard drives for the trust, and had appointed an individual to do the job

£1600 per HDD

NO drives nor data released to the public domain



IT Asset Disposal Myths

Top 10





Myth #1

MYTH:

“It’s cheaper to do it myself.”

TRUTH:

- The rate you pay your techs
- The cost of them not doing a more strategic project
- Space, systems, software costs



Myth # 2

MYTH:

“It is more secure to use my team than outsource.”

TRUTH:

Study: Up to **10%** do not get erased

Trained and *dedicated* staff

Certified and auditable process



Myth # 3

MYTH:

“Freeware works good enough for us.”

TRUTH:

Traceability – Support - Certified

Technical : DCO HPA - miss areas of the drive

Productivity. Free is not free. Costs you in time



Myth # 4

MYTH:

“I trust the local guy that I’ve been using for years.”

TRUTH:

- It only takes **1 loss**
- Lower risk with certified ITAD vendors
- RISK : environment and data breach risk



Myth # 5

"I am protected because I encrypt my drives."

TRUTH:

Encryption is a great deterrent.

Encryption is not an accepted data sanitization standard.

Perform a proper data erasure –
Electronic Record



Myth # 6

MYTH:

“I destroy all drives to be secure.”

TRUTH:

Standards equally accept destruction and erasure

One size (or method) does not fit all

Remarket value vs Risk



Myth # 7

MYTH:

“Solid State Drives (SSDs) cannot be erased.”

TRUTH:

Difference between SSD and magnetic drive.

Experts Say...

Erase is sufficient. Secure Erase too.

Both maybe best.



Myth # 8

MYTH:

"I erased the drives, so I am covered."

TRUTH:

Storage before and after erasure

Documented process and QA

Asset tracking & chain of custody



Myth # 9

MYTH:

“The standard is NATO , DoD, 3-pass / 7-pass.”

TRUTH:

The latest UK standard is CESG HMG IAS 5

Compliant vs Certified

Modern drives sanitize all data after 1 pass



Myth # 10

MYTH:

“I can sell my equipment for more money on eBay, why use an ITAD?”.

TRUTH:

Resources, time and cost

Selling in volume

Managing a buyers expectations

Certified Data Erasure with a Certified Vendor =

Highest ROI

Lowest Risk

Best Service



Why Classify Data ?

Determine all data as IL4 or IL5

Heavy-handed security

Staff workarounds

Lack of respect for IL

Workarounds compromise all data

Contempt for Data Categorisation process



Business Impact Levels

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
None	Likely to cause embarrassment to an individual or organisation	Likely to cause loss of reputation to an individual or organisation	Likely to cause embarrassment or loss of reputation to many citizens or organisations	Likely to cause long term (eg months) or permanent loss of reputation to many citizens or organisations	Likely to cause major long term damage to the UK population



Options for Data Removal

- Destroying
- Degaussing
- Overwriting
- Built in Commands





What Do the experts say ?

- Destroying
Shredding 0.5mm small particle..... €€€€
- Degaussing
No effect. Data remains intact
- Overwriting (Good)
2x overwrite of visible addresses sufficient, but not in all cases
- Built in Commands (Better)
Work when implemented correctly by manufactures
Lack verification

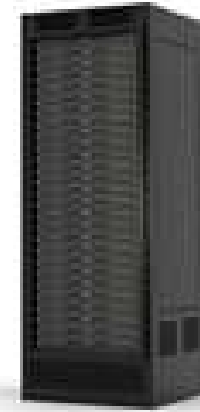


Tabernus Company Overview

- Founded in 2002 with a specialty in enterprise hard drive testing; relocated to Austin, TX in 2004
- In 2005, developed proprietary, state-of-the-art electronic data elimination software and hardware
- Opened a London office and became both a provider member of IAITAM and affiliate member of ADISA in 2011.
- CESG Certified 2011, DIPCOG approved 2013, NATO approved 2013
- Opened a R & D centre in South Wales, UK in February 2012
- Global software deployment mechanism and UK Certification allow customers to expand their data erasure offering on site and across countries.



Products & Solutions



Complexity



Low

Medium

High



E800 Series Hard Drive Erasure Appliances

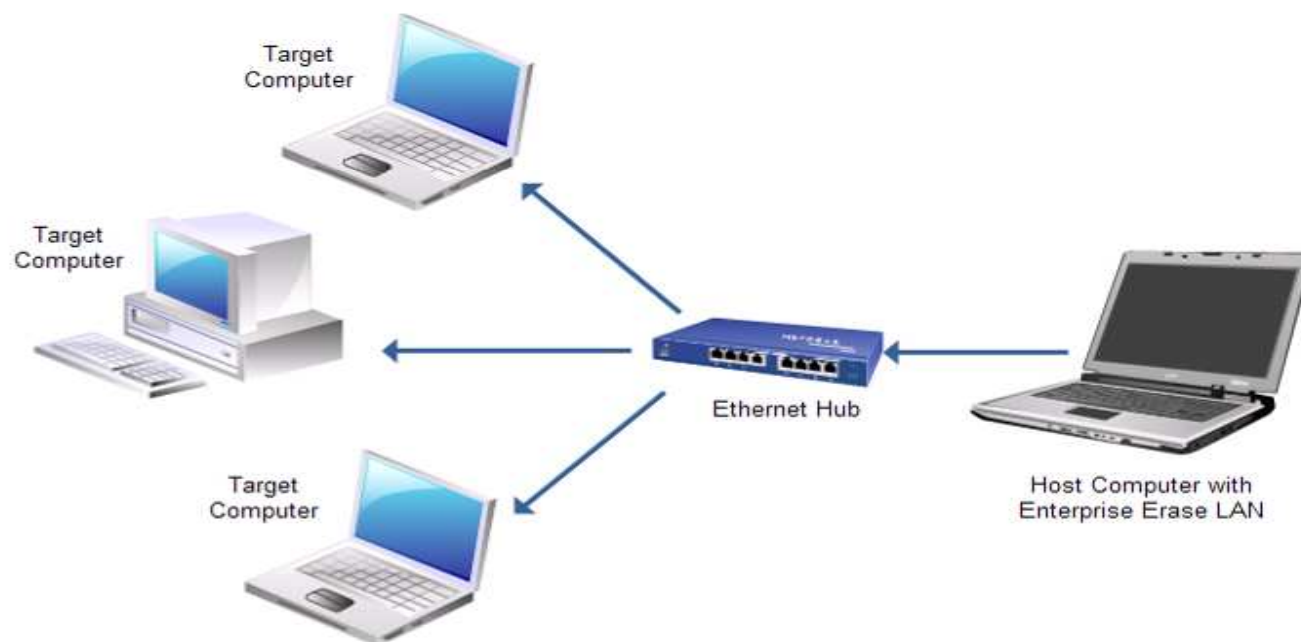
- Configurability /customization
- Hot swap ready – increases erasure throughput
- Fully operational computer
- Full reporting and documentation ready
- Recertify Hard Drives
 - S.M.A.R.T. Check and Test
 - Performance testing
 - HPA / DCO overlay set & removal
- Data Security
 - CESG (HMG IAS No.5-Higher or Lower)
 - Configurable for future CESG and CC revisions





Enterprise Erase LAN

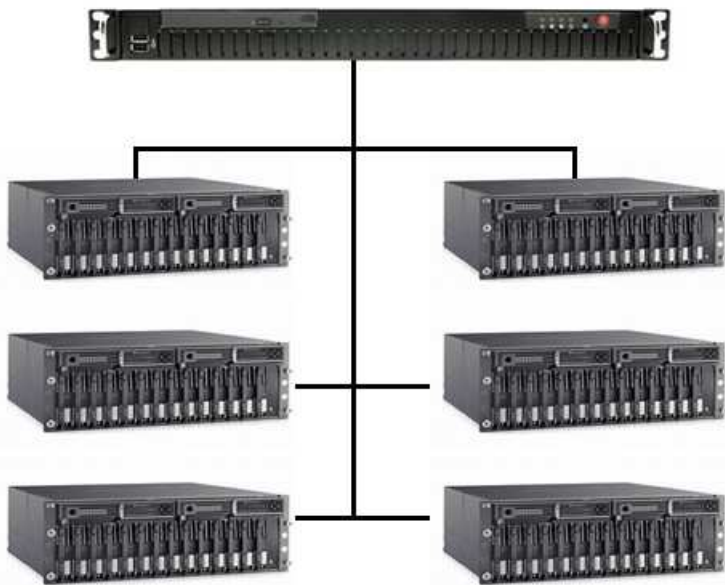
Capable of data erasure and IT asset information collection on over 200+ systems simultaneously.





Enterprise Erase ARRAY

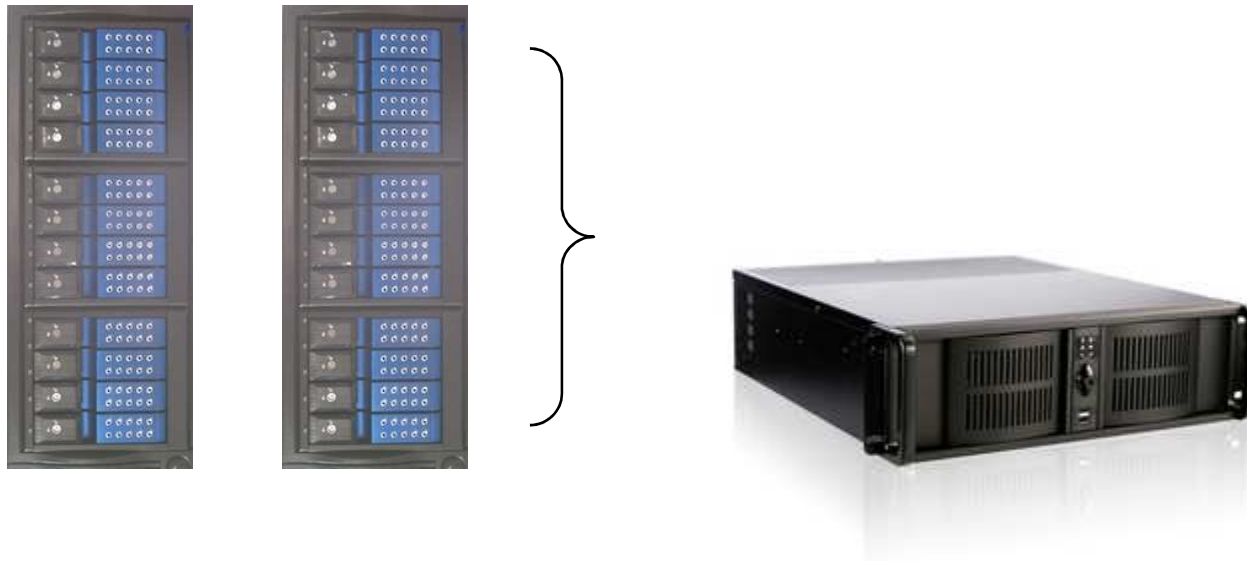
- Capable of erasing 200+ hard drives simultaneously.
- Onsite record to date is 268 drives simultaneously.
- Most storage frames contain 120-150 hard drives.





New E2400 Series Hard Drive Erasure Appliances

- 24 Port IDE or SATA (pre-configured)
- Loose hard drive solution





Enterprise Erase 2U



Included:

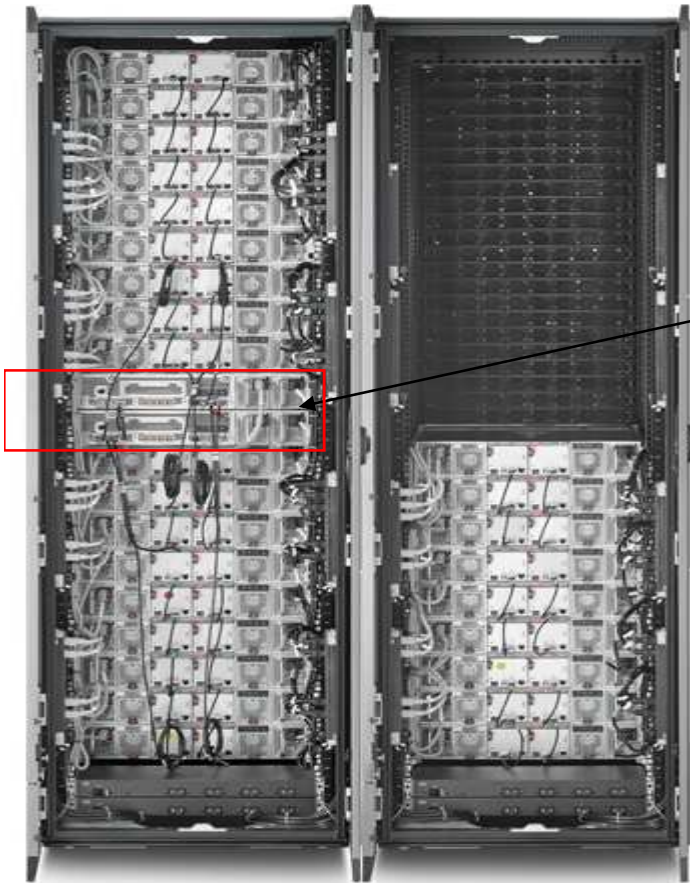
- 2U chassis with FC/SAS cards installed
- FC Cables: optical cables & SFP connections

What you will need to supply:

- Monitor
- Keyboard
- Mouse



Frame Level Erasure



EE Array directly connects to the system switch or controller



The appliance can then see all of the drives inside the tower and erase them all simultaneously



Tabernus Mobile Data-wipe

Simple 3 step process

- Erase the phone and O/S
- Re-flash latest OS
- Phone ready for re-use, donation or sale.

Advantages

- Qualified erasure allows for item to be re-used
- Erase all accessible parts of the phone and software, removing the risk of data breach.
- Erase up to 40 phone simultaneously
- Auditable data erasure
- No current recognized Certifications for Flash/SSD however Tabernus offers a £10 Million per phone Erasure insurance!

Disadvantages

- None, although chain of custody and a handling process should be initiated





FULL DISK ENCRYPTION SECURE ERASE STANDARD- SDD SOLUTION

- In milliseconds– changes encryption key , Data intact , decryption prevented by the key change
- Only a few manufacturers support FD-SE Standard today
- Tabernus call it Cryptographic Erase
- Our Method :Cryptographic Erase invoked in HDD Firmware
- Secure Erase -on ATA command wipes cache and most disk space
- Overwrite Data



Customer Portal

- Software and Licensing Portal
- No HASP keys, Nothing to ship
- Licensing simple for staff, Login, assign licenses, Go!

The screenshot shows the Tabernus Customer Portal interface. On the left is a navigation menu with the ACME logo in red. The main content area is titled "Welcome to the Tabernus Customer Portal" and features four large icons with labels: "Software Updates" (a computer monitor), "Transactions" (a notepad with a pen), "Request License" (a CD/DVD), and "My Account" (a person icon).

ACME

Home
Software Updates
Transactions
Request License
My Account
Contact Support
Logout

Welcome to the Tabernus Customer Portal

Software Updates Transactions Request License My Account



Tabernus Certification and Compliance

- CESG Baseline and Enhanced (May 2011)
- DoD 5220.22-M 3 pass & 7 pass
- NIST SP-800-8 & NIST Enhanced
- US Army AR380-19
- US Navy NAVSO-P5239-26
- Russian GOST R 50739-95
- VSITR (Germany)
- DIPCOG
- NATO
- Canada CSEC ITSG-06
- SEAP
- New CESG CPA - attained Q3 2013
- ISO 14001
- ISO 9001

UK Government
Certified Data Erasure





Tabernus Affiliations

Affiliations

- ADISA (Europe, USA, Australia)
- IAITAM
- BrokerBin

Integrations

- IQ Reseller
- Makor Solutions
- Green Oaks Solutions
- Various ITAD/OEM proprietary systems

HDD OEMS

- Various including EMC, Hitachi, Micron and Crucial

Equipment OEMS

- Various including HP, Dell, Wistron, IBM





Customers/End Users





Thank you for your attention

Tabernus

www.tabernus.com
sales@tabernus.com

Europe

+44 (0) 845 689 1350

+44 (0) 7961 255096

Contact: David Gannon