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Mobile Lab erasure appliance

Data Center disk erasure appliances for erasing failed drives, storage arrays, and servers

Highlights

- Direct attach to disk subsystems to erase entire arrays

- Integrated erasure "trays" for easy attachment of standalone drives

- Half-rack configuration on wheels, weighs approximately 250lbs

- Supports commonly used erasure standards NIST and DoD, plus many others like NAVSO and Infosec

- Generates a certified erasure report for each serial number or LUN ID erased

- Unlimited use—no per drive charges –for the lifetime of the product

- Erases a higher percentage of failed drives than any other product in the market—often erasing 90% of failed drives

- Erases any drive protocol—FC, SAS/SATA,

The Mobile Lab is an enterprise class erasure appliance built for erasing storage arrays. Using integrated trays that slide out from the unit, failed drives are easily attached to either a FC, SAS/SATA, or SCSI adapter, without removing drives from their drive caddy. All drive protocols can be erased, including Fibre Channel, SAS, SATA, and SCSI both 3.5" and 2.5" form factors. Drives from any manufacturer, any storage array, and any server/workstation can be erased using the Mobile Lab. Users can choose to erase with desired algorithm, including DoD, NIST, or 15 other available erasure algorithms. A log file is generated at the start of each drive erasure that contains information used to generate a certified erasure report after the completion of the drive erasure. Each log file contains a hash that prevents tampering with log file data.   Individual drives are erased at their maximum write speed – the write speed varies based on the drive type/manufacturer as well as the general health of the drive. As a point of reference, a 146GB 15K FC drive might complete a single-pass NIST erasure in about 22 minutes, while a 1TB SATA generally takes about 3 hours to perform the same erasure. Performance advantages originate from special SCSI commands eliminating the need to constantly transfer erasure patterns over the BUS - enabling the Mobile Lab to concurrently erase a large number of drives without being limited by bus speed.

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Erasing Storage Arrays

The Mobile Lab is used to erase entire storage arrays by directly attaching to the disk drawers of the target array via a custom cable. An erasure report is generated post erasure which lists each serial number drive in the array (i.e. the erasure report for a 400 drive array will have 400 lines, one for each serial number drive). Most arrays can be erased via direct attach.

The Mobile Lab is a Windows platform (Windows 7 or Windows Server) running a dedicated erasure application. It houses internal Host Bus Adapters (HBAs) for erasing FC, SAS, SATA, and SCSI drives. Custom cables are attached to these same HBAs and then directly connected to external disk drawers in storage arrays for direct attach external array erasure. The Mobile Lab uses a Xeon processor with 8GB of RAM, and can be used to erase 100's of drives simultaneously when erasing storage arrays.

LUN Erasure

The Mobile Lab can also perform LUN erasure of any LUN presented to the appliance. A log file is generated for each LUN ID erased. Performance of our LUN erasure has been measured to be faster than competing products like FDR Erase, sometimes up to 14x faster. Performance advantages originate from special SCSI commands the eliminate the need to constantly transfer erasure patterns over the BUS - enabling the Mobile Lab to concurrently erase a large number of drives or LUNs without being limited by bus speed.

Custom Built

Each Mobile Lab is custom built to requested specifications. FC and SAS/SATA connectors are attached to integrated pull-out trays, enabling easy attachment of individual drives for erasure. In the picture on the right, the erasure trays can seen, along with the integrated KVM. The desired number of trays and connectors is determined pre-build and each machine is built to customer specifications.

Software Features

There are advanced software features available – including the ability to print drive labels (post erasure), limit operator access to certain functions, choose whether to perform a health check on individual drives, and choose to automatically start a drive erasure once a drive has been assigned to a bay for erasure. The integrated software also enables users to view the contents of media before and after erasure, and choose what level of verification to perform (spot vs. full disk) for each erasure.

Take the next step. Send us an email at info@harddrive-erase.com