

# **Product Brief**

# Seagate Secure<sup>™</sup> Self-Encrypting Drives with LSI<sup>®</sup> MegaRAID<sup>®</sup> SafeStore<sup>™</sup> Encryption Services for Servers

Simplest, most cost-effective, highest performance security





Strong enough for the National Security Agency.Simple enough for the one-man IT shop.

"Many organizations are considering drive-level security for its simplicity in helping secure sensitive data through the hardware lifecycle from initial setup, to upgrade transitions and disposal."

Eric Ouellet Research VP

#### Gartner

The world's leading information technology research & advisory company.

### **Growing Concerns**

A company's data is one of its most valuable assets. Today there is a:

- Growing number of increasingly sophisticated thieves targeting your data
- Escalating number of data privacy laws with increasingly severe penalties
- Explosion in the amount of data to be protected. (A single RAID stripe can contain hundreds of customer records. A single drive can contain years of business transactions.)

Stolen data can mean high customer notification costs, tarnished reputation, loss of customers any of which can quickly put a company out of business. Vulnerable segments include:

- Financial industry companies that store sensitive client information such as social security numbers (tax preparers, financial advisors, insurance agents)
- Retail stores that store credit card numbers
- Medical offices that are moving to electronic records
- Government and other businesses that work with and store sensitive information

The fact is, eventually all drives are at risk:

- "Smash & Grab" theft of an entire server
- · "Failed" drives returned for warranty or repair
- End-of-lease, repurposed, or sold drives

Until now, there has been no secure, cost-effective method to erase the data:

- Overwriting is time-consuming and can leave readable data
- Physical destruction destroys the drive's value for warranty, repair, lease return, repurposing or resale.

# **Introducing Self-Encrypting Drives**

The world's largest companies are rapidly deploying self-encrypting drives (SEDs) within their data centers. MegaRAID adapters with LSI SafeStore Encryption Services makes deploying Seagate Secure SEDs easy and cost-effective. With incremental solution costs starting in the 10% range, even oneman IT "departments" can afford powerful SED security technology.

SEDs can be used for either or both of the following:



Data encryption process with LSI SafeStore Key Management

Auto-Lock: The drive locks, and the data is secured, the moment a drive is removed from a system or a drive or system is stolen.

**Instant Secure Erase:** Cryptographically erases a drive, whether it's 73GB or 1TB — in less than a second enabling secure drive returns or reuse.

#### LSI Safestore Local Key Management on MegaRAID Controllers

As a leader in storage technologies, LSI is pleased to offer SafeStore encryption services which combine Trusted Computing Group (TCG) compliant, local key management with SEDs. SafeStore maintains and controls the key linkage and communications with the SEDs; secures user-selected volume groups; and authorizes instant secure erase.

#### Seagate Secure Self-Encrypting Drives

The world's leading hard drive company is the first to introduce SEDs — providing government grade, Trusted Computing Group (TCG) compliant security, that encrypts data as it is written to the drive. In auto-lock mode, when the drive first powers up, it requires authentication before unlocking. After the drive is unlocked, the drive operates normally, with any data being decrypted before being read from the drive. The SED also provides instant secure erase at drive retirement by changing the encryption key inside the drive.

#### Secure

The United States National Security Agency (NSA) has recognized the first SED model, the Seagate<sup>®</sup> Momentus<sup>®</sup> 5400 and 7200 FDE, as acceptable for protecting information in computers deployed by U.S. government agencies and contractors for national security purposes.

#### **High-Performance**

While other encryption methods may take place at the software or controller level, which can negatively impact processing resources, the SED's hardware encryption engine matches the drive port's maximum speed and encrypts all data with no performance degradation. This performance scales linearly and automatically, with each drive added to the system. No CPU cycles from the host are necessary and I/Os occur without interruption.

#### Simple

Seagate Secure SEDs operate transparently to end users, storage systems, applications, databases, and the operating systems. SafeStore uses simple and intuitive configuration menus that are imbedded in the MegaRAID volume setup menus, adding only a few minutes to the standard MegaRAID Storage Manager™ volume setup.

## **Cost-effective**

With incremental solution costs in the hundreds of dollars instead of thousands of dollars, SafeStore local key management and Seagate Secure SEDs can save an organization up to millions of dollars by protecting against a data breach. Instant Secure Erase lets businesses avoid other costly and less secure methods of data erasure. It maintains the drive's value for repurposing, resale, returns and avoids the need to destroy the drive and purchase a replacement.

#### Flexible

SafeStore local key management has the flexibility to use SEDs in auto-lock mode (with either boot time password protection or automatic reboot) or to use SEDs for Instant Secure Erase only (which does not require passwords). It also supports non-SEDs drives.

For more information and sales office locations, please visit the LSI website at: www.lsi.com



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