



**Media Inquiries:**  
Phil Missimore  
Waggener Edstrom Worldwide  
415-547-7032  
[philm@waggeneredstrom.com](mailto:philm@waggeneredstrom.com)

**TOSHIBA ANNOUNCES SELF-ENCRYPTING DRIVE DESIGNED TO TRUSTED  
COMPUTING GROUP'S "OPAL" SPECIFICATION**

*Self-Encrypting Drive Enables Easier and More Secure Deployment of Encryption on Notebook  
PCs Helping Organizations to Protect Confidential Information*

**IRVINE, Calif., November 30, 2010** – Toshiba Storage Device Division (SDD), the pioneer in small form factor hard disk drives (HDDs), today announced a 7,200 RPM 2.5-inch Self-Encrypting Drive (SED) that provides government-grade AES-256 hardware encryption incorporated in the disk drive's controller electronics. Based on the Opal Security Subsystem Class (Opal SSC) specification from the Trusted Computing Group (TCG), the new Toshiba SED enables secure and quick deployment of encryption on notebook and desktop PCs to protect confidential information. Many organizations are taking steps to comply with security policies and new laws governing data privacy. The SED technology from Toshiba helps IT departments cost-effectively achieve strong security without interrupting business flow or impacting application performance.

SEDs designed to the Opal SSC specification provide advanced access authentication and built-in hardware data encryption. Because it is an open industry standard, Opal encourages broad support from both security solutions vendors and SED makers – enabling seamless management of most deployments that support both pre-existing software encryption and Opal SSC-specified SED storage. SEDs designed to the Opal specification help organizations easily and cost-effectively protect data from theft or unauthorized access, while easing the administrative burdens associated with re-purposing, or retiring client systems and data storage.

The MKxx61GSYD is the newest addition to the Toshiba family of drives designed for commercial notebooks and security-sensitive applications, including shared desktop PCs. The drive's built-in hardware encryption offers benefits that go beyond software encryption:

## TOSHIBA LAUNCHES SED MODEL DESIGNED TO TCG OPAL SPECIFICATION

- **Stronger security:** The Toshiba MKxx61GSYD provides AES-256 encryption built into the drive's electronics hardware. This government-grade encryption increases security for data that reside on the storage media. The Toshiba AES-256 encryption algorithm implementation is certified by the US National Institute of Standards and Technology (NIST) through its Cryptographic Algorithm Validation Program (CAVP). In addition, access to the Toshiba MKxx61GSYD SED can be securely administered or disabled remotely, using capabilities such as those enabled by Intel's Active Management Technology (AMT).
- **Ease of deployment:** With SED storage, the initial encryption of OS files, applications, and user data is performed at full I/O speeds by the SED as the data are transferred to the disk media. With software encryption, loading of the OS, applications and user data must be completed prior to reading and encrypting the same data within the PC's system memory and re-writing the encrypted data back to the drive. This "re-encryption cycle" often takes hours and may create a security gap during initial system deployment. With SED drives, disk contents are encrypted as they are loaded, providing both a faster and more secure deployment process. These same advantages help to reduce IT support burdens when recovering or re-purposing a notebook or PC using SED storage.
- **Compatibility:** The MKxx61GSYD is compatible with leading third party security management applications for notebook and other client PCs. Recognizing the need for stronger and more transparent deployment of encryption, leading independent software vendors (ISVs) have participated directly in the development of the TCG's Opal SSC specification. As a result, Opal SSC is a broadly-supported industry standard with many security management software vendors supporting mixed environments of Opal SSC-compliant SEDs and legacy software encryption applications.
- **Improved performance:** Software encryption uses CPU cycles and system memory capacity, reducing the performance of applications. The hardware encryption built-into the MKxx61GSYD allows full storage I/O speeds, ensuring that users will experience no reduction in application performance due to background encryption processes.
- **Transparency:** Because SED security features are transparent to applications and operating systems, the MKxx61GSYD can be deployed into any managed security environment supporting the industry standard Opal SSC specification. The

## TOSHIBA LAUNCHES SED MODEL DESIGNED TO TCG OPAL SPECIFICATION

MKxx61GSYD model also provides features to support secure, role-based pre-boot access authentication such as that employed by the leading security management ISVs in their client security, enterprise client administration, and single-sign-on frameworks.

- **Reduced cost and simplicity:** The MKxx61GSYD has built-in hardware encryption and, therefore, can help eliminate expenses associated with software encryption licenses. The built-in encryption also eliminates the need to escrow media encryption keys, reducing the complexity of key management.

“The MKxx61GSYD helps organizations of all sizes to proactively protect sensitive data and to ensure compliance with data privacy regulations. Strong data encryption and access authentication are the foundations for meeting the ‘safe harbour’ provisions of privacy protection laws,” said Maciek Brzeski, vice president of marketing at Toshiba Storage Device Division. “By working closely with leading security ISVs and technology enablers, Toshiba is ensuring that our SED models integrate seamlessly into the most widely supported managed security environments. IT organizations can start to transition toward drive-based encryption in many cases using their current security management environment and without impacting legacy software encryption deployments.”

“Encryption standards established by organizations such as the Trusted Computing Group are making it significantly easier to deploy security solutions such as self-encrypted HDDs on portable PCs,” said IDC industry analyst, John Rydning. “Toshiba is aiming squarely at the need for stronger data security by launching its new mobile 2.5in HDD with AES 256 encryption embedded in the drive hardware, and designed to the Trusted Computing Group’s Opal SSC specification.”

Toshiba is shipping samples of the MKxx61GSYD now. Volume production is scheduled for Q1 2011.

For more information on the Toshiba line of industry-leading mobile and enterprise-class, small form factor hard drives, visit [www.toshibastorage.com](http://www.toshibastorage.com).

### ***Product specifications:***

<b>Model number</b>	<b>MKxx61GSYD</b>
<b>Maximum capacity (formatted)<sup>1</sup></b>	640/500 // 320/250/160
<b>Number of platters</b>	2 // 1
<b>Areal density (max)</b>	512.1 Gb/in <sup>2</sup>
<b>Media transfer rate (max)</b>	1,575 Mbps

## TOSHIBA LAUNCHES SED MODEL DESIGNED TO TCG OPAL SPECIFICATION

<b>Average seek time</b>	12 ms
<b>Rotational speed</b>	7,200 RPM
<b>Buffer memory</b>	16 MB
<b>Interface</b>	Serial ATA 3.0 Gb/sec, Revision 2.6 (ATA-8)
<b>Interface transfer rate</b>	3 Gb/s
<b>External dimensions (WxDxH; mm)</b>	69.85 mm x 100.0 mm x 9.5 mm
<b>Weight (g)</b>	115/98 g (max)
<b>Energy consumption efficiency</b>	0.0013/0.0016/0.0025/0.0032/0.0050 W/GB
<b>Shock resistance:</b>	
<b>Operating</b>	3,185 m/s <sup>2</sup> (325 G) 2ms
<b>Non-operating</b>	8,820 m/s <sup>2</sup> (900 G) 1ms
<b>Acoustics:</b>	
<b>Idle</b>	26 // 23 dB
<b>Seek</b>	26 // 23 dB
<b>Certified encryption algorithms</b>	AES-256 (FIPS 197); NIST CAVP - AES #1484
<b>Industry-standard access authentication and device management</b>	TCG Storage Architecture Core Specification TCG Storage Security Subsystem Class: Opal SSC

### *About Toshiba Storage*

Toshiba is a one-of-a-kind global storage company, offering hard disk drives (HDDs), optical disk drives (ODDs), solid state drives (SSDs) and NAND flash memories – technologies that drive a wide range of consumer electronics, computer and automotive applications, as well as enterprise solutions for the global marketplace. Toshiba leads in the development, design and manufacture of mobile, retail and enterprise hard disk drives. In North America, Toshiba's Storage Device Division markets high-quality storage peripherals to original equipment manufacturers, original design manufacturers, value-added resellers, value-added dealers, systems integrators, distributors and retailers worldwide. Inherent in the Toshiba storage family are the high-quality engineering and manufacturing capabilities that have established Toshiba products as innovation leaders worldwide. For more information, visit [www.toshibastorage.com](http://www.toshibastorage.com)

### *About Toshiba America Information Systems Inc. (TAIS)*

Headquartered in Irvine, Calif., TAIS is comprised of four business units: Digital Products Division, Imaging Systems Division, Storage Device Division and Telecommunication Systems Division. Together, these divisions provide mobile products and solutions, including industry-leading portable computers; televisions, TV/DVD Combination products, Blu-ray Disc and DVD products and portable devices; imaging products for the security, medical and manufacturing markets; storage products for automotive, computer and consumer electronics applications; and telephony equipment and associated applications.

TAIS provides sales, marketing and services for its wide range of products in the United States and Latin America. TAIS is an independent operating company owned by Toshiba America, Inc., a subsidiary of Toshiba Corporation. Toshiba is a world leader and innovator in pioneering high technology, a diversified manufacturer and marketer of advanced electronic and electrical products spanning information & communications systems; digital consumer products; electronic devices and components; power systems, including nuclear energy; industrial and social infrastructure systems; and home appliances. Toshiba was founded in 1875, and today operates a global network of more than 740 companies, with 204,000 employees worldwide and annual sales surpassing 6.3 trillion yen (US\$68 billion). For more information on Toshiba's leading innovations, visit the company's web site at [www.toshiba.com](http://www.toshiba.com).

## **TOSHIBA LAUNCHES SED MODEL DESIGNED TO TCG OPAL SPECIFICATION**

© 2010 Toshiba America Information Systems, Inc. All rights reserved. All product, service and company names are trademarks, registered trademarks or service marks of their respective owners. Information including without limitation product prices, specifications, availability, content of services, and contact information is subject to change without notice.

###