# ■ Implementation of security features in storage products

Accompanying the growing demand for personal data protection, the importance of information security of storage products is increasing. Toshiba Electronic Devices & Storage Corporation provides hard disk drives (HDDs) suitable for various applications, including client HDDs for personal mobile devices and multifunction printers (MFPs), and enterprise HDDs for data centers. Our HDDs incorporate adequate security features according to their intended applications.

Security requirements for HDDs include prevention of data leakage in the event of theft or loss. A function for wiping out all data is also required for HDDs to prevent data leakage after disposal. To meet these requirements, we develop self-encrypting drives (SEDs).

The MQ01ABU***BW series[1] automatically encrypts the written data internally using AES[2], a standard encryption algorithm specified by the U.S. National Institute of Standards and Technology (NIST). The MQ01ABU***BW series also supports access control using the ATA[3] Security Feature Set and TCG[4] Opal SSC[5] to prevent retrieval of protected data without password authentication. These features provide data leakage protection.

Furthermore, the MQ01ABU***BW series incorporates Cryptographic Erase that allows the user to instantaneously invalidate all data in the drive simply by changing a data encryption key as well as Wipe technology, our proprietary data encryption technology to wipe out all data without a costly overwriting process. The security level of the MQ01ABU***BW series is certified through an accredited third party under the Cryptographic Module Validation Program (CMVP) (#2082) for use by the U.S government and under JCMVP (Japan CMVP) (#F0022) for use by the Japanese government. These certifications are security requirements for self-encrypting HDDs for digital MFPs and therefore simplify a digital MFP vendor's acquisition of security certification.
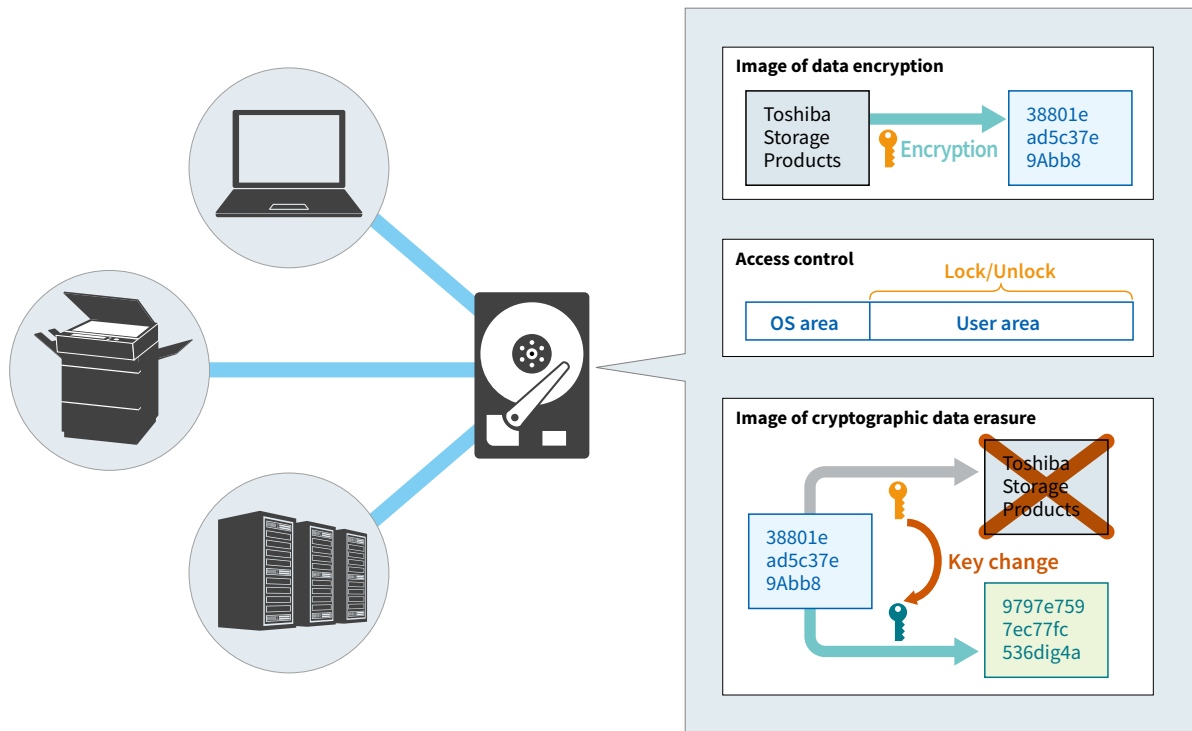
●Image of security features of storage products

＊1　MQ01ABU***BW series : MQ01ABU050BW/MQ01ABU032BW
＊2　AES : Advanced Encryption Standard
＊3　ATA : Advanced Technology Attachment
＊4　TCG : Trusted Computing Group
＊5　SSC : Security Subsystem Class