New security features let cards boot devices, securely manage memory and meet electronic right to repair regulation

SAN RAMON, CALIF— May 17, 2022 — SD Association (SDA) today announced three advanced security features in the new SD 9 specification: Boot support, Trusted Computing Group (TCG) Storage and Replay Protected Memory Block (RPMB) authenticated memory. SD 9 gives device manufacturers the ability to use an SD memory card for all memory and storage needs, simplifying future device upgrades or repairs and enhancing security capabilities for applications when the cards are tightly bound to specific hosts.

SD 9 defines Fast Boot and Secure Boot capabilities giving cards the ability to serve as a device’s boot code memory while offering a simple fast boot code uploading process along with secured methods of providing future boot code updates. SD 9 adds TCG secured storage by adding self-encrypted drive functionality. The specification defines RPMB as a secured hidden memory accessible only through a secured authentication process, while also providing a secured boot code update process, plus write-protect and replay protection security mechanisms.

Devices ideally suited for the new capabilities defined by SD 9 include Chromebook™ computers, tablets, drones, surveillance cameras, dash cameras, gaming consoles, virtual reality (VR) headsets/glasses, small IoT modules and wearable medical devices, to name a few. SD 9 also helps product manufacturers meet new right to repair regulations and simplifies upgrade and repair processes for devices installed in locations without internet connectivity.

“SD memory cards are a compelling choice for both storage and memory because they will boot devices, are capable of delivering SSD performance levels and simplify device repairs or upgrades,” said Hiroyuki Sakamoto, SDA president. “The SD 9 specification gives product manufacturers a compelling array of choices when defining memory and storage needs of devices.”

The optional features defined in SD 9 are available to both microSD and full-sized SD memory card form factors. The features are applicable across all capacity types, from SD to the forthcoming SDUC memory cards. Importantly, these features will be supported by SD Express, capable of delivering SSD performance levels up to 4GB/sec.

The SDA has prepared a whitepaper providing more details about the compelling new features defined by SD 9 for SD memory cards.
SD Association
The SD Association is a global ecosystem of nearly 800 technology companies charged with setting interoperable SD standards. The Association encourages the development of consumer electronic, wireless communication, digital imaging and networking products that utilize market-leading SD technology. The SD standard is the number one choice for consumers and has earned more than 80 percent of the memory card market with its reliable interoperability and its easy-to-use format. Today, smartphones, tablets, drones, IoT devices, HDTVs, audio players, automotive systems, computers, digital cameras and digital video cameras feature SD interoperability. For more information about SDA or to join, please visit the Association’s website, https://www.sdcard.org.

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