Toshiba introduces enterprise-class solid state drive family

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Extending its position in the enterprise storage market, Toshiba Corporation today announced its new family of enterprise-class solid state drives (SSDs). Developed to meet the market's demand for higher performance and lower power consumption, the new MK x001GRZB series combines Toshiba's hard disk drive (HDD) expertise and its leadership as the inventor of NAND flash technology. The 2.5-type small form factor drives use the latest 32 nanometer (nm) enterprise

grade single-level cell (SLC) NAND flash memory from Toshiba and a 6Gb/sec Serial Attached SCSI (SAS) interface. Samples will be available for customer qualification in the first quarter of 2011.

Toshiba also announced a new line up of high capacity near line HDD with a 3.5-type form factor.

The new SSD integrates Toshiba's advanced capabilities in NAND flash and solid state storage solutions with know-how in controller and firmware design for enterprise HDDs. As a result, Toshiba is uniquely positioned to engineer solid state drives that deliver the performance, endurance and reliability required for business critical applications.

Available in capacities of 100GB, 200GB, and 400GB, the MKx001GRZB family of SSD drives are designed for ease of integration into new or existing tier-0 enterprise storage systems and designs, including servers, direct-attached storage and network-attached storage. The drives deliver performance that outpaces competing enterprise-class SSDs, with random sustained 90,000 read and 17,000 write IOPS and sequential sustained 510MB/sec read and 230MB/sec write throughput. This realizes read speeds more than 3 times faster than for Toshiba's current enterprise HDD. Combined with a low power requirement of only 6.5 watts in operation, Toshiba's SSD family also delivers an industry-leading power efficiency rating of 13,800 IOPS/Watt.

As the it world makes the transition to cloud solutions, data that are now stored in individual users devices – desktop and portable PCs and tablet PCs – will increasingly be stored in server farms. The enterprise storage systems required for this are optimized in terms of overall performance, power and cost by structuring high performance devices with different capacities in layers.

The new enterprise SSD line-up and the high capacity 3.5-type near line HDD complement Toshiba's current range of enterprise 2.5-type HDD, and with their addition to its storage solutions portfolio the company has further enhanced its ability to deliver total layered architecture solutions for data centers and enterprise servers.

The Toshiba enterprise SSD lineup forms the pinnacle of a tiered storage architecture that enables organizations to effectively tune the performance, capacity, endurance, and reliability of their storage environments. For data storage that requires high reliability and high capacity – but not the very rapid access to data provided by SSDs – Toshiba has also released the new MK x001TRKB and MKx002TSKB series HDDs, the former with an SAS interface, the latter a SATA interface. These cost-effective near line HDD models feature a maximum storage capacity of 2TB in a traditional 3.5-type form factor and leading-edge 6Gb/sec SAS and 3Gb/sec Serial ATA (SATA) interfaces.

Intended for 24 x 7 operation, the drives also include features that are critical to business operations such as Error Correction (ECC), Rotational Vibration (RV) compensation technology for multi-drive systems, and enhanced power condition state technology. Mass production of MK2001 TRKB and MK1001 TRKB starts from the first quarter, 2011, with samples shipments of MK 2002TSKB and MK1002TSKB following in the first quarter of 2011.

Source: Toshiba