

# STEC Unveils SSDs With Enhanced Reliability, Lower Cost

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STEC this week unveiled new higher-performance versions of its solid-state drives (SSDs), as well as a new [OEM](#) relationship with IBM (NYSE:[IBM](#)).

The Santa Ana, Calif.-based developer of high-performance solid state storage technology said at the [Flash Memory Summit](#) in Santa Clara, Calif., Monday that it is shipping samples of new enterprise-class SSDs, including new multilevel cell-based drives with 6-Gbps [SAS](#) and 4-Gbps [Fibre Channel](#) connectivity.

SSDs generally feature one of two types of memory technology.

The first is single-level cell (SLC) memory technology, in which one bit of data occupies one cell of the flash memory, making them optimized for performance and data reliability.

The second is multilevel cell (MLC) technology, in which four bits of data occupy one cell of the flash memory. This allows for greater capacity than SLC-type drives. However, performance of MLC-type drives, while much higher than that of traditional hard drives, drops when compared to that of SLC-type drives. Also, they are rated for fewer write cycles than SLC-type drives.

With its new ZeusIOPS SSDs, STEC said it has enhanced the reliability of MLC SSDs with the introduction of MLC NAND Flash components, which the company said offer improved reliability at a significant cost savings compared to SLC memory.

STEC said it has added high-performance Flash [controller](#) technology and proprietary Flash management algorithms to give the new drives better performance than consumer-grade MLC SSDs or traditional spinning [hard disk](#) drives.

The company's new MLC-based drives will be available with 6-Gbit SAS and 4-Gbit [Fibre Channel](#) connectivity in 2.5-inch and 3.5-inch form factors with capacities up to 800 GB. They are expected to start shipping in volume early next year.

STEC also used the Flash Memory Summit to unveil a new 4-Gbit Fibre Channel SSD line featuring both SLC-based and MLC-based models in a 3.5-inch form factor. The new SSDs, expected to ship in volume by year-end, can perform random reads at up to 80,000 I/Os per second, random writes of up to 40,000 I/Os per second, and transfer speeds of 380 Mbps for reads and 300 Mbps for writes.

STEC also revealed a new OEM customer, IBM, which is integrating STEC's MACH8IOPS SSD into IBM's System x Servers.

This follows the move last month by Compellent to start integrating STEC's ZeusIOPS SSDs into the Compellent tiered-storage SAN appliance. The appliance allows active data to be stored on SSDs for highest performance, and automatically migrates to slower disk drives as the data ages and is no longer required to be stored on the highest-performance storage devices.