

## **SSD ASIC architecture targets enterprise apps**

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8/18/2011 11:12 AM EDT

STEC, Inc. announced a new integrated application-specific integrated circuit (ASIC) architecture for its ZeusIOPS® enterprise-class SSD family in order to make them more cost-efficient. The ZeusIOPS SSD ASIC architecture offers a range of options optimized for enterprise system architects that includes 6 Gigabyte (GB) Serial Attached Storage (SAS) and Fibre Channel (FC) interfaces, as well as a capacities supporting up to 1.6 Terabytes (TB) of user accessible storage.

The overall ZeusIOPS SSD cost has been reduced by moving to a customized ASIC controller that intelligently manages the growing complexities associated with shrinking NAND flash memory geometries. In addition, the ASIC controller has been designed to utilize NAND process geometries of either 3X or 2X nanometers, providing more functionality in a smaller footprint, as well as reducing overall device cost and power consumption.

The company reports that its ZeusIOPS SSDs enable server and storage systems to reach the outstanding and sustainable input/output operations per second (IOPS) performance required for data center and virtualization requirements. SAS and FC interfaces support 2.5-inch and 3.5- inch form factors, with future products to support 1.8-inch form factors.

The transactional performance of ASIC-based ZeusIOPS SSDs exceeds 120,000/70,000 sustained IOPS with sequential large block transfers of up to 500 Megabytes per second. To improve the endurance and reliability of its ZeusIOPS SSD multi-level cell (MLC) flash-based architecture, STEC's CellCare and Secure Array of Flash Elements™ (S.A.F.E.) technologies have also been further advanced. CellCare utilizes adaptive flash access, signal processing, data management algorithms and error correction codes to improve ZeusIOPS SSD endurance and can handle intensive workloads of up to 10 full capacity writes per day for over five years without limiting ZeusIOPS SSD performance. S.A.F.E. technology eliminates virtually all failures associated with both SLC and MLC flash, providing yet another mechanism to reduce ZeusIOPS SSD failures.

### **Availability**

Sampling now to key customers.