

STEC goes on range extension rampage

Third gen speed increase and a load more goodies

By [Chris Mellor](#) • The Register

Posted in [Storage](#), 12th August 2009 11:09 GMT

STEC has set out on a range extension exercise, offering faster speeds and interfaces, and cheaper multi-level cell (MLC) flash variants.

It currently offers fast single-level cell (SLC) ZeusIOPS SSDs for enterprise storage arrays, as selected by EMC, Compellent, HDS, HP, IBM and others. The MACH8 product line is lower performance and targeted at server applications. The ZeusIOPS technology is moving to a third generation, having a cheaper MLC flash variant added, as well as a 6Gbit/s SAS interface. STEC has also announced that IBM is OEM'ing the MACH8 SSD with selected X servers.

The third iteration of the ZeusIOPS technology is now sampling with OEMs and offers faster performance in the I/Os per second and bandwidth areas, as well as the MLC support and a 6Gbit/s SAS interface. In standard 4Gbit/s Fibre Channel interface form, the gen 3 ZeusIOPS offers 80,000 random read IOPS (compared to 46,000 before), 40,000 random write IOPS (16,000 before), 380MB/sec sustained read bandwidth (220 before), and 300MB/sec write bandwidth (115 before).

STEC also says it has lowered latency to a tenth of the previous levels, but has not quoted a figure. The average access time to data in gen 2 ZeusIOPS drives was 20 - 120 microsecs, though, so we could be looking at 2 to 12 microsecs.

Gen 3 ZeusIOPS now supports MLC flash, cheaper and slower than the SLC, also with less endurance. STEC says its controller algorithms bring MLC performance and endurance up to enterprise levels. It is sampling these drives with OEMs now and says they come with either the 6Gbit/s SAS interface or the 4Gbit/s Fibre Channel one, in both 2.5-inch and 3.5-inch form factors, and with up to 800GB capacity.

It reckons the gen 3 SSDs in SLC mode will be in full production by the end of the year, and says the MLC versions, which cost less per GB of capacity than the gen 2 SLC ZeusIOPS product, should be in full production and shipping in volume by the first quarter of 2010.

Adding a 6Gbit/s SAS interface to the gen 3 ZeusIOPS product bumps its bandwidth up again. STEC is claiming 550MB/sec sustained read bandwidth and 300MB/sec sustained write bandwidth.

The MACH8IOPS SSDs IBM is now shipping with its diskless X servers are for high transaction rate environments. These drives come in a 2.5-inch form factor and offer, according to STEC's figures, 10,000 random read IOPS, 800 random write IOPS, and 100MB/sec sustained bandwidth for both read and write data transfers.

STEC CEO and chairman Manouch Moshayedi said the Enterprise Server market has been viewed as being one of the more competitive sectors for SSDs. It's where SSD suppliers such as Fusion-io have been making waves with its ioDRive products, so STEC is pleased to flag up this design win.

There is no PCIe interface SSD development announced by STEC though, so the direct competitive situation with regard to Fusion-io has not changed.

It occurs to us in *El Reg* mansions that there is one server supplier who has not made any SSD announcements. Odd too, since it is a server supplier with great ambition: Cisco.

Server SSD sales reps must be all over Cisco right now. Which way will it jump?

With these announcements, STEC has both strengthened and broadened its SSD range for enterprise server and storage suppliers. It's given Intel a new bar to step up to and is readying itself to withstand the expected product announcements from SandForce, Seagate and Pliant, all of whom are set to enter the enterprise SSD market in the next few months.

Indeed, Sandforce has just announced the availability of its SF-1000 Evaluation 2.5-inch SSD, featuring the latest [Micron 34nm flash chips](#).

STEC will be hoping that shipments from its new OEMs will ramp up over the next few quarters, increasing its revenues and justifying the share price which has risen solidly from \$3.87 at the beginning of the year to yesterday's \$32.23, down slightly from a recent high of \$35.50 after directors unloaded nine million shares. They get to take profits too. ®