

STEC Newest Flash Vendor to Move Into PCIe Market

By Chris Preimesberger – eWeek
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The Kronos PCIe is a high-endurance enterprise-class SSD that currently comes in four versions, with two more on the roadmap.

Solid-state drive maker STEC has entered the increasingly crowded PCIe-based solid-state disk market with an advanced drive that supports both SLC (single-level cell) and MLC (multi-level cell) configurations.

The drive also has a caching feature that can greatly increase the performance of servers accessing direct attached or shared storage.

The Kronos PCIe (peripheral component interconnect express), launched Aug. 4, is a high-endurance enterprise-class SSD that currently comes in four versions, with two more on the roadmap. The SLC version offers 240GB and 480GB capacities, 110K random read and 100K random write IOPs (4KB) and 1.1GB per second bandwidth for both sequential reads and writes, STEC said.

The Kronos Turbo supports 480GB SLC capacity and 980GB MLC capacity with 220K random read IOPs (4KB) and 200K random write IOPs, and 2.2GB per second bandwidth for sequential reads and writes.

The cache feature, called EnhanceIO SSD, supports VMware, Hyper-V and Linux implementations. EnhanceIO supports both write-through read caching and write caching, with power failure backup provided by super-capacitor implementations directly on the PCIe board. While EnhanceIO is a companion product to the Kronos line, it is SSD-agnostic and can drop into an environment with products from other manufacturers, storage analyst Deni Connor of Storage Strategies Now explained in her blog.

Intel launched PCIe in 2004. It is a computer expansion-card standard based on point-to-point serial links rather than a shared parallel bus architecture, and is designed to replace the older PCI, PCI-X and AGP standards.

PCIe-based flash storage has the ability to bypass traditional storage overhead by reducing latencies, increasing throughput and enabling efficient processing of massive quantities of data.

"While the STEC PCIe drive has been rumored for some time, the caching software was a surprise," Connor said. "A number of companies have been developing caching

software, but this is the first PCIe SSD from a major SSD manufacturer that has an integrated cache solution supporting both read and write cache functions."

Jim Handy of Objective Analysis told *eWEEK* his firm is forecasting that the PCIe interface will become dominant in the enterprise SSD market in 2012, with unit shipments greater than the combined shipments of its SAS and Fibre Channel counterparts.