

STEC: EnhanceIO SSD Cache Software

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For HDDs

[STEC, Inc.](#) announced a SSD caching software solution that accelerates data access and enables cost-effective server scalability to support the growing number of users and larger data volumes now prevalent in the data center.

This host-based software implements SSDs as a performance cache for HDD storage and provides a way to integrate into existing server infrastructures while minimizing TCO or requiring the need for new hardware. STEC's new [EnhanceIO SSD Cache Software](#) integrates into any existing server infrastructure and works with all commercially-available SSD devices (SAS, SATA, FC, PCIe, etc.) to accelerate enterprise applications running under Windows, Linux or VMware operating systems.

One of the challenges in the data center is to find ways to realize the benefits of SSD technology because many servers have not been capable of full SSD performance through a simple replacement of traditional HDDs. Therefore, if a server needs to scale performance, or the number of users or transactions it supports, the typical solution has been to purchase more servers, which is costly and requires additional maintenance and support. To achieve a new level of cost-effective scalability in the enterprise, STEC's EnhanceIO SSD Cache Software accelerates data access response times and delivers SSD performance on Read I/O operations.

EnhanceIO SSD Cache Software is designed to integrate the SSD device below the server's application layer so that the host CPU and memory resources are not significantly impacted and the full I/O capabilities of the SSD device itself can be realized in a manner that is easy to implement and is transparent to the server OS, applications and underlying storage. With this system infrastructure, EnhanceIO SSD Cache Software enables the performance benefits of SSD technology coupled with the storage capacity benefits of HDDs.

In a benchmark test of Oracle servers, STEC's EnhanceIO SSD Cache Software enabled 2.5 times faster throughput while serving 3.5 times more concurrent users. Through additional testing in a 10 Terabyte direct attached storage environment, EnhanceIO software provided between twice and ten times the performance (depending on the application) when compared to an 'all-HDD' solution, at about one-third the system cost.

"By adding our EnhanceIO SSD Cache Software with SSDs, data center managers can cost-effectively scale an existing enterprise IT infrastructure and speed up application performance without incurring the cost for additional hardware," said Manouch Moshayedi, STEC's Chairman and CEO. *"EnhanceIO SSD Cache software is easy to*

install and configure in a target host server, and operates with minimal monitoring and maintenance."

EnhanceIO SSD Cache Software provides Read cache, Write Back cache and Write-through cache capabilities.

It is a cross-platform solution that works with any SSD to accelerate enterprise applications, however, it is optimized for STEC SSD devices.

The software includes the following modules and capabilities:

- Performance Profiler - identifies opportunities for server performance optimization and enables customized solutions for specific server workloads.
- SSD Cache Engine - drives the effective use of SSDs in server environments and manages all I/O activity according to policies established by the end-user enterprise.
- GUI Manager - a browser-based tool used to set-up, manage and monitor the SSD cache.

"By utilizing a combination of caching software and SSDs, IT managers can strategically and cost-effectively scale existing IT infrastructures and speed user performance so that the full I/O capabilities of the SSD can be realized without the need to buy additional servers," said Jim Bagley, Senior Analyst, Storage Strategies Now. "This ideally suited marriage between SSDs and a cache software application can have a direct and immediate return on investment for the data center."