

IBM adds STEC SSDs to its SAN Volume Controller (SVC) storage virtualization device

By Beth Pariseau, Senior News Writer

14 Oct 2009 | SearchStorage.com

IBM today added [solid-state drive \(SSD\)](#) support to its [SAN Volume Controller \(SVC\)](#) storage virtualization device as part of a series of updates designed to boost the performance of the product.

SVC 5 will support up to 32 SSDs, according to Chris Saul, [storage virtualization](#) marketing manager at IBM. A fully configured 32 solid-state drive SVC can perform at up to 800,000 read IOPS, Saul said. SVC stores the tables it needs to virtualize multiple back-end storage arrays in cache, so the SSDs would boost the response times on data held within SVC.

IBM first previewed SVC with SSDs as part of Project Quicksilver in 2007. That test bed, consisting of SVC attached to a separate appliance containing Fusion-io NAND Flash devices, was clocked at 1 million IOPS. With this release, IBM is going with [STEC Inc. SSDs](#) rather than Fusion-io's products. "In the Quicksilver test bed, Fusion-io's devices were in a separate unit attached to the SVC – the SSDs fit inside the SVC engines, which means less rack space and power requirements for our customers," Saul said.

IBM remains committed to [Fusion-io as an SSD partner](#), according to an IBM spokesperson. "Fusion-io is one of our key suppliers. We do business with Fusion-io and STEC, and will be doing business with additional SSD technology providers as the market expands," the spokesperson wrote in an email to SearchStorage.com. "We will select the SSD technology partner based on a number of factors, integrating them into our systems based on the right function, performance and price. We have a number of Fusion-io initiatives that will be announced shortly."

According to Andrew Reichman, a senior analyst at Cambridge, Mass.-based Forrester Research Inc., "It makes sense to put SSD in SVC where it can then be accessible to the entire storage environment, or at least the portion of the environment behind SVC, rather than in a single array where it may be a captive resource." However, he noted, "the big question that remains here is how IBM plans to identify the data that should live on SSD."

IBM is working on a utility called Automatic Data Relocation, which would collect information about what data is "hottest" in a customer's environment and automatically move it to solid-state drive capacity both inside IBM's DS8000 arrays as well as in SVC. According to IBM's Saul, that utility will ship for DS8000 arrays in the first half of 2010, and for SVC in the second half of next year.

While some storage industry experts consider [tiered storage automation](#) a must-have for SSD deployments, Rick Villars, vice president, storage systems and executive strategies at Framingham, Mass.-based IDC, said it hasn't quite become table stakes yet. "There's still a lot of low-hanging fruit where people know enough about their application to take advantage of SSDs," he said. "But [not having automated storage tiering] does limit the usefulness across the board and for new applications."

In addition to SSD support, IBM will add support for 8 Gbps Fibre Channel (FC) connections to both sides of the SVC storage virtualization device, as well as Gigabit Ethernet iSCSI host connections. The cache in the SVC "Storage Engine," based on the IBM System x3550 server with an Intel Corp. Nehalem processor, has been tripled over previous versions to 24 GB.

Even without factoring in SSDs, Mike Kahn, co-founder and managing director at Wellesley, Mass.-based The Clipper Group Inc., said the increased performance of the device overall will be important going forward. "Some customers might not be approaching the capacity of SVC, but this could allow users to potentially do more work with fewer SVCs," he said.

Software updates will also allow SVC to quiesce applications including SQL, Oracle, SAP, DB2 and Microsoft Exchange for application-consistent snapshots. Previously, customers had to coordinate snapshots from SVC either manually or through scripts.

SVC 5 will ship November 6, with pricing starting at \$40,000.