

## IBM Adds Solid State to High-End Storage

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By Paul Shread | EnterpriseStorageForum.com

IBM (NYSE: IBM) is adding solid state drives to its DS8000 data storage arrays, following high-end competitors EMC (NYSE: EMC) and Hitachi Data Systems (HDS).

Big Blue says it has also developed smart data management software to improve [SSD](#) response times while reducing costs. Based on IBM tests, the company says the new offerings can boost performance by as much as 800 percent, while reducing physical storage footprint and energy consumption by 80 percent or more. The company is also adding the flash drives to its Power systems and expanding its x Series offerings two years after first offering SSDs in the servers.

EMC started the SSD storage craze more than a year ago when it [added](#) drives from STEC (NASDAQ: STEC) to its high-end Symmetrix systems. HDS [followed](#) in December with an announcement that it would use SSDs from Intel (NASDAQ: INTC) and another unnamed vendor in its USP systems.

IBM is working with STEC on the new offerings announced today, a partnership that has been [in the works](#) for months. Big Blue is also partnering with Fusion-io, the startup that [lured](#) Apple (NASDAQ: AAPL) co-founder Steve Wozniak out of retirement. IBM is using Fusion-io's [PCIe](#)-based products in its Server Proven program with System x, and an IBM spokesman said the company is "currently working on some additional proof of concepts with them."

IBM says its software tools let customers migrate, monitor and dynamically place data on SSDs to maximize value. Smart data placement through the IBM Data Facility Storage Management Subsystem (DFSMS) would allow targeted data placement on SSDs in an IBM zSeries and DS8000 environment, the company said. For Power server systems, IBM offers SSD Data Balancer software tools so a system administrator can move frequently accessed data to SSDs, while moving less frequently utilized data to traditional hard drives. Sun (NASDAQ: JAVA), Compellent (NYSE: CML), Pillar Data and EMC are among the storage vendors working on [similar approaches](#).

IBM said it is also integrating the DS8000 with servers and system software to maximize SSD performance in hybrid SSD and HDD environments.

Analysts gave high marks to IBM's new SSD management software.

"Special management software for SSDs is really really important, but unfortunately it's pretty rare," said Objective Analysis analyst Jim Handy.

"SSD makers tell me that the addition of an SSD to a system can bring about an immediate improvement, but this improvement pales in comparison to the acceleration you can get when you team an SSD with well-tuned software," Handy added. "A lot of IT departments don't have the resources to hand-tune their software, so products like IBM's will help them tap into a similar level of acceleration simply by installing an off-the shelf package."

Enterprise Strategy Group analyst Mark Peters agreed. "IBM's announcement certainly takes it in the right direction," said Peters. "While just about everyone can physically integrate SSDs into their systems, there is currently only a small group of vendors that can optimize the operational value that is extracted from those SSDs."