

LSI Acquires SandForce



OBJECTIVE ANALYSIS SEMICONDUCTOR MARKET RESEARCH



Strong Synergies in Combined Company

On Wednesday October 26 LSI announced the acquisition of SSD controller maker SandForce, which LSI calls: "the leading provider of flash storage processors." LSI is to pay \$322 million in cash (net of cash assumed) and assume \$48 million of unvested stock options and restricted shares held by SandForce employees. LSI expects the acquisition to be neutral to non-GAAP earnings per share in 2012.

LSI claims that this move, slated to close early in the first quarter, propels "LSI into an industry-leading position in the rapidly growing, high-volume flash storage processor market," extending "LSI's industry-leading position in storage technology solutions." LSI further states that after the acquisition: "LSI's breadth and capability will surpass any competitors in the storage semiconductor space."

SandForce will join LSI as part of the newly-formed Flash Components Division which will be managed by Michael Raam, SandForce's current president and CEO.

What this means to LSI

LSI enjoys a leading position in storage controllers, and has a deep understanding of this space stemming in part from its participation in the storage systems market until the company spun off its external storage business in March to NetApp. To date the company's disk controller offerings gave it a dominant position in HDD controllers, and LSI has experienced impressive growth with its WarpDrive PCIe SSDs, but has not had much participation in the market for other SSDs, particularly in the SATA market where unit volumes are highest.

This lack of mainstream SSD controllers did not fit well with LSI's current strategy which focuses attention on flash as an important part of today's and tomorrow's storage architectures.

With this acquisition LSI assumes a leadership position in SATA SSD controllers, positioning itself as a leader in storage control, HDD, and SSD controllers, becoming a one-stop controller shop for all things storage. SandForce has sold SSD controllers to market leading companies including LSI's partner Seagate.

LSI already uses SandForce controllers in its WarpDrive, giving the company an understanding and appreciation of the quality of the SandForce product.

What this means to SandForce

Today's global economic woes are working against start-up exit strategies. SandForce, as a private firm, faced three choices: Remain private, be acquired, or attempt an initial public offering in a difficult market. Acquisition appears to be the best of those three choices.

This company has done a laudatory job of innovating, excelling, and staying on top of a market it took from other controller makers: Jmicron and Indilinx. When SandForce introduced its second-generation controllers one year ago the company showed that it had a culture that focused on outdoing itself rather than waiting for the competition to catch up.

As with any acquisition, this one is likely to put greater financial and engineering resources at SandForce's disposal, along with a better understanding of the challenges facing the system-level designer.

What this means to SSD Makers

Objective Analysis does not anticipate any significant change to SandForce's support of SSD makers and the company's reach should be expanded through LSI's larger sales force. LSI will continue to support design wins at all these customers while introducing them to LSI's broader portfolio of RAID and HBA controllers (for PCIe SSDs) SAS bridges, and other related products. Two companies that already avail themselves of such products are Oracle and OCZ.

As we have explained to our clients for the past few years Objective Analysis continues to project that an increasing number of those companies who design their own SATA controllers will determine that the significant R&D resources needed to design proprietary controllers cannot be sufficiently defrayed across the small number of SSDs that they sell; this will lead these companies to convert to SSD architectures based on third-party controllers with proprietary firmware. It simply doesn't pay to design a proprietary controller if that controller doesn't significantly out-perform an off-the-shelf controller.

What this means to OEMS

Objective Analysis expects for OEMs to see continued strong support from LSI. Many OEMs will enjoy a greater sense of comfort in using an LSI-backed controller than they had with SandForce as a private start-up, despite the fact that SandForce has gained a significant share of this market by offering an extraordinary product.

What this means to NAND Flash Makers

Most NAND flash makers continue to use proprietary controllers. With the exception of Intel, a company that devoted a significant number of platform architects to the design of its SSD, these controllers have not proven to be any better than their competition. As we said above, Objective Analysis anticipates that many SSD makers will convert from proprietary controllers to third-party controllers, and most NAND flash makers fall into this category.

Although the LSI acquisition is unlikely to accelerate this process, this conversion will occur relatively soon.

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