

Mellanox and Micron Announce 40 Gigabit Ethernet Flash Storage Solution for Virtualized Data Centers

Mellanox Technologies

iSCSI RDMA over Mellanox's 40 Gigabit Ethernet boosts storage performance and enables application acceleration in the cloud

SAN FRANCISCO -- Mellanox Technologies, a supplier of high-performance, end-to-end interconnect solutions for data center servers and storage systems, and Micron, have announced a collaborative solution to enable higher storage performance and efficiency for virtualized environments using VMware's ESXi 5.1. The solution consists of Mellanox's ConnectX-3 40GbE NICs with iSCSI over RDMA (iSER) and Micron's 1.4TB P420m PCIe SSD cards. By taking advantage of the iSER protocol, Micron's flash storage solution delivers superior performance, providing virtual machines on a single ESXi 5.1 host with an aggregate bandwidth of 11GB/s or 527,000 IOPS using only two interconnect cards in a 3U box.

"Selecting the right interconnect technologies is vital when selecting Flash-based storage in a virtualized infrastructure. The performance benefits of Flash can easily get trapped behind slow interconnects," said Jared Hulbert, SW Research Manager at Micron. "Mellanox's 40GbE with the iSER protocol gives virtualized applications access to higher bandwidth and excellent 4KB random throughput that only Flash can provide."

"The combined solution of Mellanox's 40GbE NICs with iSER and Micron's P420m PCIe SSD enables higher performance and accelerates storage applications running in virtualized environments," said Yaron Haviv, vice president data center solutions at Mellanox Technologies. "In addition, by consolidating compute and storage traffic over a single-wire infrastructure reduces data center complexity and cost."

To evaluate this solution, a Supermicro 6037R-TXRF that supports 10 PCIe Gen3 x8 slots with two Mellanox 40GbE RDMA NICs and 8 Micron 1.4TB P420m PCI SSDs was used.

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