

PMC and Mellanox to Showcase NVMe Solutions at Flash Memory Summit

SUNNYVALE, Calif., Aug. 11 — PMC-Sierra, Inc. (PMC) the semiconductor and software solutions innovator transforming networks that connect, move and store big data, and Mellanox Technologies, Ltd., a leading supplier of end-to-end interconnect solutions for servers and storage systems, today announced the companies will showcase two breakthrough NVM Express (NVMe) solutions at Flash Memory Summit in booth #213, August 12-13, 2015, at the Santa Clara Convention Center.

The companies announced a solution for peer-to-peer transactions between RDMA-capable NICs and NVRAM drives to accelerate critical data center applications by enabling direct memory transactions to persistent memory across a low-latency fabric. DDR bus utilization is becoming a bottleneck for many high-performance mission-critical solutions. The combination of Mellanox PeerDirect RDMA and [PMC Flashtec NVRAM Drives](#) enables peer-to-peer transactions directly between PCIe devices, freeing up the CPU and DDR bus. With Flashtec NVRAM Drives and Mellanox's RDMA capabilities, modern scale-out distributed applications can protect their critical data from power failures by writing directly to NVRAM across an RDMA-capable network interface without compromising performance and latency. See www.pmcs.com/lit for more information.

PMC and Mellanox also announced they will demonstrate NVMe over RDMA leveraging the Flashtec NVRAM Drive's NVMe interface and Mellanox's ConnectX-3 Pro network card. NVMe over RDMA enables faster application response times and improved scalability across virtual data centers by connecting remote subsystems with flash appliances, eliminating the increased latency caused by SCSI translation. See www.pmcs.com/lit for more information.

“With this latest enhancement to our PeerDirect software library, customers can now integrate NVRAM into their applications and use a low latency RDMA fabric to support a distributed Persistent Memory Model, while offloading the memory subsystem and CPU of the remote node,” said Michael Kagan, chief technology officer, Mellanox. “Combining PMC's NVMe and storage expertise with Mellanox's high-speed networking and RDMA capabilities is leading to very significant advancements in how end users can benefit from NVMe.”

“Maximizing the efficiency of the CPU and DDR bus is a major concern for data center architects,” said Derek Dicker, vice president of PMC’s Performance Solutions Group. “PMC’s Flashtec products provide a direct link between the CPU and flash, and set the bar for storage performance. These solutions with Mellanox are yet another example of how NVMe can help data centers get the most out of their assets and drive down latency.”

Mellanox Ethernet and InfiniBand interconnect solutions provide the highest performance for solid state storage. Mellanox ConnectX-3 Pro, ConnectX-4, and ConnectX-4 Lx InfiniBand and Ethernet Adapters along with Spectrum switches and LinkX cables deliver an end-to-end solution supporting low-latency storage access and replication at 10, 25, 40, 50, 56, and 100Gb/s speeds.

PMC Flashtec NVRAM Drives combine the speed and endurance of DRAM with the persistency of NAND flash to deliver ten times higher performance than the fastest Solid State Drive, at more than 10 million I/Os per second, with sub-microsecond latency. Leveraging PCIe 3.0, the Flashtec NVRAM Drives connect directly to the host to optimize CPU utilization and maximize overall system performance. They are based on the industry-standard NVMe interface to enable plug-and-play PCIe connectivity. For more information, visit www.pmcs.com/flashtec.

Availability

The NVRAM Peer-Direct solution consists of any RDMA-compliant HCA from Mellanox and the PMC Flashtec NVRAM Drive. This is coupled with Operating System driver code (currently supported on Linux), as well as software from both Mellanox and PMC. All the code required to enable this technology is available at www.pmcs.com/lit.

About Mellanox

Mellanox Technologies is a leading supplier of end-to-end InfiniBand and Ethernet interconnect solutions and services for servers and storage. Mellanox interconnect solutions increase data center efficiency by providing the highest throughput and lowest latency, delivering data faster to applications and unlocking system performance capability. Mellanox offers a choice of fast interconnect products: adapters, switches, software, cables and silicon that accelerate application runtime and maximize business results for a wide range of markets including high-performance computing, enterprise data centers, Web 2.0, cloud, storage and financial services. More information is available at www.mellanox.com.

About PMC

PMC is the semiconductor and software solutions innovator transforming networks that connect, move and store big data. Building on a track record of technology leadership, the company is driving innovation across storage, optical and mobile networks. PMC's highly integrated solutions increase performance and enable next-generation services to accelerate the network transformation. For more information, visit www.pmcs.com. Follow PMC on our [Blog](#), [Facebook](#), [Twitter](#), [LinkedIn](#) and [RSS](#).

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