

Mon, Apr 25, 2011

Mellanox Introduces SwitchX with Virtual Protocol Interconnect Technology; Industry's First 56 Gb/s InfiniBand and 10/40 Gigabit Ethernet Multi-Protocol Switch Silicon

SwitchX™ Delivers Highest Switching Bandwidth, Density, Efficiency and Flexibility for Virtualized, Scalable and Converged Data Center Compute, Networking and Storage Infrastructures

SUNNYVALE, CA. and YOKNEAM, ISRAEL – April 25, 2011 – Mellanox® Technologies, Ltd.

(NASDAQ: MLNX; TASE: MLNX), a leading supplier of high-performance, end-to-end connectivity solutions for data center servers and storage systems, today announced the immediate availability of its next-generation switch silicon, [SwitchX™ with Virtual Protocol Interconnect®](#) (VPI) technology, providing industry-best performance, efficiency and scalability for up to 36-ports of FDR 56Gb/s InfiniBand or 40 Gigabit Ethernet. With unprecedented levels of on-chip and SerDes integration, SwitchX can operate as an InfiniBand switch or Ethernet switch (including Data Center Bridging - DCB) with extremely low-latency and power while providing best-in-class switching capabilities in each category. In addition, the IC includes integrated convergence technology for Fibre Channel NPIV gateways.

SwitchX provides more than 4Tb/s of non-blocking switching throughput and allows new levels of protocol flexibility, simplicity and reliability to eliminate networking bottlenecks in modern data centers for server-to-server, server-to-storage or storage-to-storage connectivity. SwitchX delivers next-generation service-oriented switch capabilities and enables convergence of LAN (Local Area Network), SAN (Storage Area Network) and IPC (Inter Processor Communications) service architectures. It allows flexible partitioning of the network into multiple management domains to support multi-tenancy and the delivery of an extensive array of network services over a common infrastructure.

Combined with Mellanox's [ConnectX®](#) family of VPI adapters, SwitchX provides an efficient end-to-end interconnect solution that delivers superior application performance. Data center costs are reduced through efficiency, flexible network repurposing and I/O consolidation. The combination of application performance and infrastructure optimization maximizes return-on-investment in multiple markets including high-performance computing, financial services, database, Web 2.0, virtualized data centers, Internet and the Cloud.

According to Crehan Research, the combined InfiniBand, 10 and 40 Gigabit Data Center Ethernet Switch market is growing at a compound annual growth rate (CAGR) of 28 percent, from approximately \$4 billion in 2010 to over \$13 billion in 2015.

"This is a market that is already experiencing rapid expansion and opportunity," said Seamus Crehan, president of Crehan Research. "Switches that can offer multiple data center protocols and application flexibility on high bandwidth, low latency, energy efficient platforms are likely to do best from this expansion."

"The new class of data centers requires lossless, high density, low power switching capabilities that

removes bottlenecks, supports convergence and maximizes efficiency for the best return-on-investment,” said Eyal Waldman, chairman, president, and CEO of Mellanox Technologies. “SwitchX delivers on these requirements with best-in-class features and performance over both InfiniBand and Ethernet protocols for maximum flexibility. We are proud to provide the industry’s first 56Gb/s FDR InfiniBand and the highest density Ethernet switch, both in the same IC with SwitchX.”

SwitchX is an ideal choice for OEMs that must address end-user requirements for faster and more robust applications, and for data centers and cloud computing environments that need to adapt their infrastructure to accommodate a variety of applications. SwitchX’s reduced power, footprint and fully integrated PHY capabilities provide network architects critical feature-sets to enable fabric-flexible server and storage systems to meet the increasing performance demands of their customers.

SwitchX leverages TSMC’s 40nm process technology to deliver an unprecedented level of performance, integration and convergence capabilities:

- Industry-leading >4Tb/s switching capacity on a single-chip
- Low FDR 56 Gb/s InfiniBand latency of 160ns
- Industry-leading Layer 2 Ethernet latency of 230ns
- Flexible, high-density port configurations:
 - Up to 36 FDR 56Gb/s InfiniBand or 40GbE ports
 - Up to 64 10GbE Ports
 - Up to 24 2/4/8G Fibre Channel ports
- Industry-best power per port:
 - 10GbE ~ .62W
 - 40GbE ~ 1.5W
 - FDR 56Gb/s IB ~ 2W
- Unmatched link level reliability offers extreme scale-out fabrics
- Fibre Channel convergence with NPIV gateway
- Native gateways from InfiniBand to Ethernet and to Fibre-Channel
- InfiniBand and Ethernet routers
- Advanced InfiniBand and Layer 2/3 Ethernet features such as adaptive routing, congestion control, TRILL, DCB, Quality of Service 802.1p, DIFFSERV, Energy Efficient Ethernet, IEEE 1588 Clock Synchronizations, and multiple switch partitions

Availability

Mellanox SwitchX Silicon IC prototypes are available today. More information regarding SwitchX can be found at www.mellanox.com.