Mellanox Announces World's Most Scalable Switch Platforms Based on HDR 200G InfiniBand Quantum Switch Technology

With Up to 1600-ports in a Single Platform, Quantum Switch Systems Enable Highest Performance while Reducing Data Center Network Expenses by 4X

SUNNYVALE, Calif. & YOKNEAM, Israel--(BUSINESS WIRE)-- SUPERCOMPUTING 2017 -- Mellanox Technologies, Ltd. (NASDAQ: MLNX), a leading supplier of high-performance, end-to-end smart interconnect solutions for data center servers and storage systems, today announced the world-leading and most scalable switch platform family based on HDR 200G InfiniBand Quantum™ switch technology. The new family includes:

- Quantum QM8700 - Top-Of-Rack 40-port 200Gb/s or 80-port 100Gb/s switch platform,
- Quantum CS8510 - modular 200-port 200Gb/s or 400-port 100Gb/s switch platform, and
- Quantum CS8500 - modular 800-port 200Gb/s or 1600-port 100Gb/s switch platform.

The higher switch density of the new platforms will enable Mellanox customers and users to optimize their use of space and power, reducing data center expenses by 4X or more while increasing their performance by 2X. For departmental-scale implementations, a single Quantum QM8700 switch connects 80 servers reflecting 1.7 times higher than competitive products. For enterprise-scale, a 2-layer Quantum switch topology connects 3200 servers which is 2.8 times higher than competitive products. For hyperscale, a 3-layer Quantum switch topology connects 128,000 servers, or 4.6 times higher than competitive products.

These data center scaling advantages enable high-performance computing, deep learning, cloud, storage and other infrastructures to reduce their network equipment cost by 4X, their electricity expense by 2X, and improve their data transfer time by 2X.

"The HDR 200G Quantum switch platforms will enable the highest scalability, all the while dramatically reducing the data center capital and operational expenses," said Gilad Shainer, vice president of marketing at Mellanox Technologies. "Quantum will enable the next generation of high-performance computing, deep learning, Big Data, cloud and storage platforms to deliver the highest performance and setting a clear path to Exascale computing."

"Bright Computing has worked with Mellanox for many years, and our engineering collaboration enables quick and efficient HDR and HDR100 deployments with our Deep Learning offerings from our leading OEM partners," said Martijn de Vries, CTO, Bright Computing. "We're also extending our collaboration into the private cloud space, working with Mellanox to deliver InfiniBand-class network performance with Bright OpenStack."

"In speaking with customers around the globe, we continue to hear of the challenges they face in applying the power of high performance computing technology to new and emerging areas including data analytics and deep learning," said Kash Shaikh, vice president of product management and marketing, Hybrid Cloud & Ready Solutions Group, Dell EMC. "Dell EMC and Mellanox have a long-standing relationship and we will continue to work together, including future support of HDR, to help our customers deploy the right solutions to help them navigate these emerging technologies."

"Bandwidth and latency are two key variables to application performance in a High Performance Computing data center," said Bill Mannel, vice president and general manager of HPC and AI at HPE. "Similar to our solutions with EDR, HPE and Mellanox engineers are developing embedded HDR fabric options for purpose-built HPC platforms, HPE Apollo 6000 Gen10 and HPE SGI 8600 systems, providing our customers more bandwidth and reduced latency using the new Mellanox Quantum powered HDR switch technology."

"The explosive growth in data and customer requirements on data analysis in real time demands faster network speeds as well as more scalable computing and storage infrastructure," said Qiu Long, president, IT Server Product Line, Huawei. "We are pleased to work with Mellanox to offer the leading HPC solutions with Mellanox HDR InfiniBand innovation. Huawei continuously commits to deliver higher performance while reducing total cost of ownership for our customers."

"Mellanox's new HDR 200G Quantum switch platforms hold the promise of giving us new levels of scalability while helping to reduce data center costs," said Mr. Leijun Hu, VP of Inspur Group. "We are pleased to see the introduction of Quantum which we believe will enable the next generation of high-performance applications."

"Mellanox HDR and HDR100 InfiniBand technology empowers innovation at scale," said Mr. Li Li, vice president, general manager of Product Sales and Marketing at New H3C Group. "Incorporating Mellanox HDR and HDR100 InfiniBand technology into our solution will enable us to achieve optimal configuration and have better control of both capital and operational expenditures."

"As AI becomes more pervasive, massive amounts of real-time data piped to and from larger scale GPU accelerated systems is paramount," said Ian Buck, vice president and general manager of Accelerated Computing at NVIDIA. "The HDR InfiniBand Quantum switch technology from Mellanox provides the bandwidth, scalability and flexibility needed to deliver new levels of performance and efficiency for the next generation of deep learning accelerated computing systems."

"Mellanox Quantum more than doubles the number of compute nodes per InfiniBand leaf switch, which supports the industry-leading physical density of the Penguin Tundra ES platform," said Jussi Kukkonen, vice president, Advanced Solutions, Penguin Computing, Inc. "In early 2018, Penguin will bring to market the first systems featuring a true PCI-Express generation 4 I/O subsystem, unlocking the full 200Gbps performance potential of the Mellanox Quantum and InfiniBand HDR."

"With Mellanox's new HDR 200G Quantum switch platforms, we now see a clear path to Exascale," said Mr. Chaoqun Sha, senior vice president of technology at Sugon. "We are excited to see this solution come to market with its data center scaling advantages and improved data transfer rates."

Supporting Resources:

- Learn more: Quantum HDR 200Gb/s
- Follow Mellanox on Twitter, Facebook, Google+, LinkedIn, and YouTube
- Join the Mellanox Community

About Mellanox

Mellanox Technologies (NASDAQ: MLNX) is a leading supplier of end-to-end InfiniBand and Ethernet smart 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 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.

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Mellanox Technologies, Ltd.
Press/Media Contact
McGrath/Power Public Relations and Communications
Allyson Scott, +1-408-727-0351
allysonscott@mcgrathpower.com
or
Israel PR Contact
Galai Communications Public Relations
Jonathan Wolf, +972 (0) 3-613-52-84
yoni@galaipr.com

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