



# 200 Gigabit HDR InfiniBand Boosts Microsoft Azure High-Performance Computing Cloud Instances

## The HDR InfiniBand Connected Virtual Machines Deliver Leadership-Class Performance, Scalability, and Cost Efficiency for a Variety of Real-World HPC Applications

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 that Microsoft Azure is offering 200 gigabit HDR InfiniBand to connect their new cloud instances, increasing scalability and efficiency of high performance computing (HPC), artificial intelligence and other compute and data intensive applications.

Mellanox's 200Gb/s HDR InfiniBand connectivity enables extremely low latencies, high data throughput, and smart In-Network Computing acceleration engines. Customers can use the standard Mellanox software drivers just as they would for a bare metal environment. And with the support of RDMA verbs, they can use all InfiniBand based MPIs, such as Mellanox HPC-X, MVAPICH2, Platform MPI, Intel MPI and others. Customers can also leverage hardware offloads of MPI collectives to realize additional performance, as well as efficiency gains for commercially licensed applications.

Third party performance testing conducted by Ohio State University, using 100 gigabit HDR InfiniBand connectivity, has demonstrated up to 13 times better performance than an alternative cloud offering that uses home-grown 100 gigabit Ethernet connectivity.

"We are excited to bring our 200 gigabit HDR InfiniBand technology and solutions into Microsoft Azure, enabling users to leverage leading cloud services with an HPC network that offers the industry leading performance, scalability and efficiency," said Gilad Shainer, senior vice president of marketing at Mellanox Technologies. "Our collaboration with Microsoft has enabled our customers to reach near native performance, and to scale to tens of thousands of compute cores. By taking advantage of InfiniBand RDMA and its MPI acceleration engines, Azure delivers higher performance compared to other cloud options based on Ethernet. We look forward to continuing work with Microsoft to introduce future generations and capabilities."

Girish Bablani, corporate vice president, Azure Compute at Microsoft Corp. said, "Microsoft Azure is designed to bring leading performance and scalability to customers seeking to run compute and data intensive applications in the cloud. We also strive to ensure our customers can use the same software drivers and libraries running on their on-premises supercomputers. By leveraging 200 gigabit HDR InfiniBand, we are able to offer scale and performance that rivals the fastest bare-metal supercomputers for real-world HPC and AI workloads."

### Supporting Resources:

- Learn more on [Mellanox 200G HDR InfiniBand Quantum switch](#)
- Learn more on [Mellanox 200G HDR InfiniBand ConnectX-6 adapters](#)
- More on Mellanox products and solutions at: <http://www.mellanox.com>
- Learn more about Mellanox HPC at <http://www.mellanox.com/solutions/hpc/>

Alex Shapiro  
Enterprise Networking  
1-415-608-5044  
[ashapiro@nvidia.com](mailto:ashapiro@nvidia.com)