Meteorological forecasting and research requires high-speed processing of massive data inputs, so productivity depends on processing speed. Data centers used in weather research use HPC cluster technology, combining the power of hundreds or thousands of CPUs with large, high-speed storage systems. To complete the performance equation, however, these data centers must be able to move data from server to server or server to storage at a speed that doesn’t create processing bottlenecks. Mellanox InfiniBand products maximize data center performance and productivity by delivering industry-leading bandwidth and the lowest latency.

**The Mellanox Solution**

In today’s multi-core, multi-processor servers, each server can require up to 1 gigabit of I/O performance to avoid processing delays. Mellanox I/O adapters, switches, and gateways deliver up to 56Gb/s per port of reliable, lossless connectivity with only 700 nanoseconds of latency to eliminate data movement bottlenecks. Mellanox solutions support most of the world’s most powerful supercomputers, and they can bring the same high performance and reliability to weather data centers.