



200G HDR InfiniBand to Accelerate the New European Centre for Medium-Range Weather Forecasts (ECMWF) Supercomputer

The HDR InfiniBand Connected Supercomputer Will Increase the Center's Weather and Climate Research Compute Power by Five Times, Enabling Enhanced and Far More Accurate Forecast and Predictions

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 200 Gigabit HDR InfiniBand has been selected by the European Centre for Medium-Range Weather Forecasts (ECMWF) to accelerate their new world-leading supercomputer, based on Atos' latest BullSequana XH2000 technology. By leveraging HDR InfiniBand's fast data throughput, extremely low latency, and smart In-Network Computing engines, ECMWF will enhance, speed up, and increase the accuracy of weather forecasting and predictions.

"We require the best supercomputing power and the best technologies available for our numerical weather prediction activities," said Dr Florence Rabier, director general at ECMWF. "With the new supercomputing capabilities, we will now be able to run higher resolution forecasts in under an hour and enable much improved weather forecasts. As governments and society continue to grapple with the impacts of increasingly severe weather, we are also proud to be relying on a supercomputer designed to maximize energy efficiency."

The new supercomputer to be deployed in 2020 will be one of the world's most powerful meteorological supercomputers, supporting weather forecasting and prediction researchers from over 30 countries across Europe. The new platform, utilizing HDR InfiniBand, will enable running nearly 2 times higher-resolution probabilistic weather forecasts in under an hour, improving the ability to monitor and predict increasingly severe weather phenomena and enable European countries to take proactive precautions to protect lives and property.

"We are proud to have our 200 Gigabit HDR InfiniBand solutions accelerate one of the most powerful meteorological services supercomputers in the world, at the European Centre for Medium-Range Weather Forecasts," said Gilad Shainer, senior vice president of marketing at Mellanox Technologies. "Climate and weather simulations are compute and data intensive, and require the most advanced interconnect technology to ensure fast and accurate results. HDR InfiniBand includes multiple data acceleration and analysis engines, making it the leading technology for such applications. We look forward to continuing work with ECMWF and Atos, to develop the supercomputing capabilities needed for even more accurate and complex simulations in the future."

The technological advantages of InfiniBand for climate research and weather forecasting applications have driven many of the world's leading meteorological service agencies to choose InfiniBand to accelerate their supercomputing platforms. Examples include: Meteo France (France), the Finnish Meteorological Institute (Finland), China Meteorological Administration (China), Beijing Meteorological Service (China), the National Center for Atmospheric Research (USA), and of course the European Centre for Medium-Range Weather Forecasts (UK).

"The combination of Mellanox's HDR InfiniBand solution and Atos' BullSequana XH2000 supercomputer delivers industry leading supercomputing technology to accelerate meteorological applications, along with other compute and data intensive applications," said Andy Grant, Group VP, Large Strategic HPC Deals at Atos. "The combined technology has been selected by leading agencies such as Meteo France and the Finnish Meteorological Institute for their new supercomputers. We are excited to build another BullSequana XH2000 - 200G HDR InfiniBand supercomputer in 2020 and to be working together to improve Europe's ability to understand and predict weather and climate phenomena."

Supporting Resources:

- Learn more about [Mellanox 200G HDR InfiniBand Adapters](#) and [Switches](#)
- More on Mellanox products and solutions at: www.mellanox.com
- Learn more about Mellanox HPC at: www.mellanox.com/solutions/hpc

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