NVIDIA and IBM bring supercomputing to big data analytics

October 7 2014, by Umit Gupta

NVIDIA and IBM are working to tackle some of the most vexing challenges of data center computing.

Last Friday, IBM announced that it's developing a GPU-accelerated version of its DB2 database software with BLU Acceleration – the database used around the world by enterprise customers handling high-volume workloads.

And IBM plans to accelerate its other big data software packages in the future.

IBM is also optimizing Power versions of popular GPU-accelerated

applications for bioinformatics, defense, finance, molecular dynamics, and weather modeling , including SOAP3, NAMD, GROMACS, FFTW library, and Quantum Espresso.

And, they'll all take advantage of the availability of the world's first GPU-accelerated OpenPower systems.

IBM Power Now with GPU Acceleration

Also on Friday, IBM unveiled the IBM Power S824L system. It's a data processing powerhouse that integrates the NVIDIA Tesla Accelerated Computing Platform – Tesla GPUs and enabling software – with IBM's POWER8 processor.

The new system is the first result of an ongoing effort with IBM to couple the best of our technologies around processors, data center systems, accelerators, system software, and applications to deliver optimized solutions that solve extremely complex problems.

Future POWER systems will integrate NVIDIA NVLink, the world's first high-speed GPU interconnect. This will eliminate the need to transfer data between the CPU and GPUs over the PCI Express interface.

NVLink lets GPUs and IBM POWER CPUs share data five to 12 times faster than they can today.

This will improve performance for many enterprise and high performance computing applications, and help bring us a step closer to reaching exascale computing levels.

Expect to see news of more computing system architecture advances from NVIDIA, IBM, and OpenPOWER foundation members in the

coming months.

Provided by NVIDIA

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