BIG DATA

AWESIM

SCIENTEL IT CORP SOFTWARE SHOWCASES POWER OF OSC'S OWENS CLUSTER

In 2017, the Ohio Supercomputer Center partnered with the Scientel Information Technology Corporation to demonstrate the power of the Owens Cluster by running the single-largest scale calculation in its history.

Scientel used the Owens Cluster to test new database software, Gensonix Super DB, which is the only software optimized to run on supercomputer systems to take full advantage of high performance computing architecture that helps support Big Data processing. To demonstrate the power of Genosonix Super DB, the Scientel team created a sample weather database application to run using Owens.

"The robust nature of the OSC Owens Cluster provided the reliability for this large parallel job," said Norman Kutemporer, CEO of Scientel.

"(The OSC staff members) are extremely knowledgeable and very capable of understanding customer requirements, even when jobs are super scaled. Their support and enthusiasm for projects of this nature are outstanding."

— Norman Kutemporer, CEO of Scientel

VIRTUAL DESIGNS. REAL BENEFITS.

Scientel will push Gensonix Super DB to process large varieties of data and compute problems in areas such as cancer research, drug development, traffic analysis, and space exploration.

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INFORMATION TECHNOLOGY

2017

THE CHALLENGE

Until recently, there wasn't a software for Big Data processing that was optimized to run on supercomputers. That was, until Scientel developed Gensonix Super DB, a software designed for Big Data environments that can use thousands of data-processing nodes compared to other database software that use considerably fewer nodes at a time. Scientel partnered with OSC to test this software, and it was the single-largest scale calculation in the Center's history.

THE APPROACH

Scientel, a Big Data specialist company, used the 16,800 cores of the Owens Cluster to test its new Gensonix Super DB software. Scientel used 600 of the Owens Clusters's available 648 compute nodes, and the system reached a processing speed of over 86 million data transactions per minute with no errors. The run created 1.25 Terabytes of synthetic data.

THE SOLUTION

By scaling to thousands of Owens nodes, Gensonix massively parallel processing capabilities can be brought to provide additional functions such as data reductions to prepare for massive high speed analytics. With satisfactory test results complete through OSC's Owens Cluster, Scientel's Gensonix Super DB software will go on to help researchers make breakthroughs in areas such as cancer research, drug development, traffic analysis and space exploration.