

Texas Stampede supercomputer to join the eXtreme Digital (XD) program

September 23 2011, by Deborah Braconnier



(PhysOrg.com) -- As part of a National Science Foundation grant, the Texas Advanced Computing Center, or TACC, from the University of Texas at Austin announced its plans to develop and support a new supercomputer they are naming Stampede. It is set to be operational in January of 2013 and will be a part of the eXtreme Digital (XD) program with the National Science Foundation and enable scientists to share computing resources, data and expertise interactively.

The National Science Foundation is investing \$27.5 million to start the

project and plans to invest some \$50 million throughout the next four years. Stampede will be an Intel and Dell powered system. It will be made of up several thousand Dell Zeus [servers](#) containing 8-core processors and each server will contain 32GB of memory.

The cluster will be using [Intel](#)'s new Many Integrated Core (MIC) co-processors codenamed "Knights Corner." This will provide the entire system with a total of 10 petaflops of performance.

Also included in Stampede will be 16 [Dell](#) servers with a terabyte of shared memory and 2 GPUs each that will be used for large data analysis. There will be 128 NVIDIA graphics processing units to provide remote visualization and a high performance Lustre file system for data intensive computing. The entire Stampede system will provide a peak performance of 10 petaflops, 272,000 gigabytes of memory and 14 million gigabytes of disk storage.

Stampede will be used to support computational and data driven science and engineering projects throughout the U.S. and allow researchers to create advanced methods for petascale computing. The goal will also be to use Stampede to train the next generation of scientists and researchers in advanced computational science and technology.

The University of Texas at Austin is set to break ground in November 2011 for a new data center which will house Stampede.

More information: [Press release](#)

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