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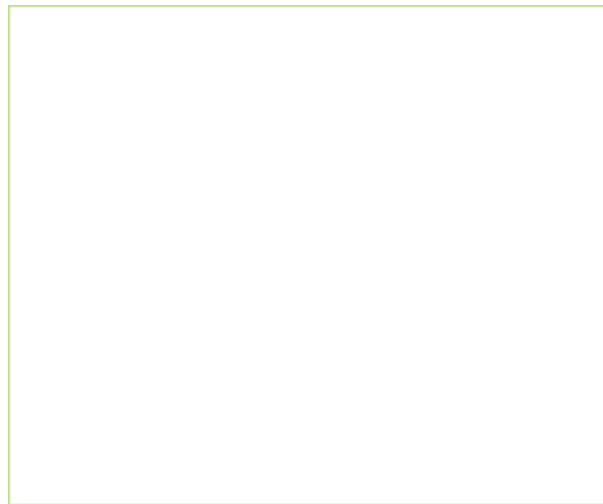
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## DARPA looks to four organizations to prototype next generations of supercomputers

Posted by John Keller



**ARLINGTON, Va., 10 Aug. 2010.** Military computer scientists at the U.S. Defense Research Projects Agency (DARPA) in Arlington, Va., are looking to industry firms including NVIDIA Corp. in Santa Clara, Calif.; Intel Corp. in Hillsboro, Ore.; the Massachusetts Institute of Technology Computer Science and Artificial Intelligence Laboratory in Cambridge, Mass.; and Sandia National Laboratory in Albuquerque, N.M. to develop technologies for the next generation of extreme-scale computers that will be 1,000-times more powerful than today's supercomputers.

DARPA also chose Georgia Institute of Technology in Atlanta to lead an effort in developing applications, benchmarks and tools for evaluating the UHPC extreme-scale -- or exascale -- supercomputing systems under development.

DARPA is sponsoring this work as part of its Ubiquitous High Performance Computing (UHPC) program, a new, innovative, revolutionary generation of computing systems that overcomes the limitations of current supercomputing systems.



The goal of DARPA's UHPC program is to re-invent high-performance computing. It plans to develop architectures and programming models that are 100 to 1,000 times more energy efficient, with high performance that are easier to program than current systems. Prototype UHPC systems are expected to be com

All U.S. Department of Defense (DOD) sensors, platforms, and missions depend heavily on computer graphics. Officials point out. The ability to increase performance, however, is limited by high power consumption. DARPA is looking to the UHPC program to develop high-performance computers that require less computation.



Computer graphics expert NVIDIA Corp. is leading one of the UHPC teams, which includes the support of Cray Inc. in Seattle; Oak Ridge National Laboratory in Oak Ridge, Tenn., and six U.S. universities.

"The DARPA UHPC program is attacking technical issues that are key to the future of high performance computing, from the embedded terascale to the exascale," says Steve Scott, Cray's senior vice president, chief technology officer and Cray principal investigator on the team.

For more information contact NVIDIA online at [www.nvidia.com](http://www.nvidia.com), Intel at [www.intel.com](http://www.intel.com), the MIT Center for Artificial Intelligence Lab at [www.csail.mit.edu](http://www.csail.mit.edu), or Sandia National Lab at [www.sandia.gov](http://www.sandia.gov).

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