DOD HPC
MODERNIZATION PROGRAM

NEWS RELEASE

High Performance Computing Modernization Program Doubles Capabilities

The Department of Defense (DOD) High Performance Computing Modernization Program (HPCMP) just completed its fiscal year 2014 investment in supercomputing capability supporting the DOD science, engineering, test and acquisition communities. The total acquisition is valued at $65 million, including acquisition of two supercomputing systems with corresponding hardware and software maintenance services. At 8.4 petaFLOPs, this procurement more than doubles the HPCMP's aggregate supercomputing capability, increasing from 8.1 petaFLOPs to 16.5 petaFLOPs.

"Supercomputing is a critical enabling technology for the DOD as it continues vital work to improve both the safety and performance of the U.S. military," said John West, director of the HPCMP. "These newly acquired systems ensure that scientists and engineers in the DOD's research, development, test and evaluation communities will continue to be able to take advantage of a robust computing ecosystem that includes the best computational technologies available today."

The two purchased systems will collectively provide nearly 227,000 cores, more than 850 terabytes of memory, and a total disk storage capacity of 17 petabytes. This competitive government acquisition was executed through the U. S. Army Engineering and Support Center in Huntsville, Alabama, which selected systems from both Silicon Graphics Federal, LLC, and Cray, Inc.

"The increase in computational capability will dramatically improve the speed at which our scientists and engineers are able to complete their work," said Christine Cuicchi, HPCMP associate director for HPC centers. "These systems are also designed to advance DOD's scientific visualization capabilities to manage the vast amounts of data being produced on these systems, providing new opportunities for discovery in numerous areas of research."

The new supercomputers will be installed at two of the HPCMP's five DOD Supercomputing Resource Centers (DSRCs), and will serve users from all of the services and agencies of the Defense Department:

- The Army Research Laboratory DSRC in Aberdeen, Maryland, will receive a Cray XC30 system containing 2.3 GHz Intel Xeon E5-2698 v3 ("Haswell-EP") processors and NVIDIA Tesla K40 General-Purpose Graphics Processing Units (GPGPUs). This system will consist of 101,312 compute cores, 32 GPGPUs, and 411 terabytes of memory, and will provide 3.77 petaFLOPS of peak computing capability.

- The U.S. Army Engineer Research and Development Center DSRC in Vicksburg, Mississippi, will receive an SGI ICE X system containing 2.3 GHz Intel Xeon E5-2699 v3 ("Haswell-EP") processors and NVIDIA Tesla K40 GPGPUs. The system will consist of 125,440 compute cores, 32 GPGPUs, and 440 terabytes of memory, and will provide 4.66 petaFLOPS of peak computing capability.

The HPCMP enables advanced computing for the DOD's science and engineering communities, and serves as an innovation enabler. HPC is employed in a broad range of diverse application areas in the DOD including fluid dynamics, structural mechanics, materials design, space situational awareness, climate and ocean modeling and environmental quality.

About the DOD High Performance Computing Modernization Program (HPCMP)

The HPCMP provides the Department of Defense supercomputing capabilities, high-speed network communications and computational science expertise that enable DOD scientists and engineers to conduct a wide-range of focused research, development and test activities. This partnership puts advanced technology in the hands of U.S. forces more quickly, less expensively, and with greater certainty of success. Today, the HPCMP provides a complete advanced computing environment for the DOD that includes unique expertise in software development and system design, powerful high performance computing systems, and a premier wide-area research network. The HPCMP is managed on behalf of the Department of Defense by the U.S. Army Engineer Research and Development Center.

For more information, please visit our website at: www.hpc.mil.