



NEWS RELEASE

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High Performance Computing Modernization Program Wins Innovation Excellence Awards

The International Data Corporation (IDC) announced earlier this month that it had once again recognized the Department of Defense (DOD) High Performance Computing Modernization Program (HPCMP) for outstanding achievements on behalf of the DOD mission using high performance computing technologies and expertise. This is the third year in a row that the HPCMP has won IDC Innovation Excellence awards, bringing the program's total to five.

The HPC Innovation Excellence Awards recognize successes applying high performance computing (HPC) to significantly improve an organization's return on investment (ROI), advance science in a particular domain and/or improve an engineering product or process. IDC's goals for the awards program include helping potential users understand the benefits of adopting HPC and identifying best practice approaches that can increase the relevance of HPC tools to significant problems of national interest. More information on the program is available at www.hpcuserforum.com/innovationaward.

The HPCMP received awards this year for ROI and innovation.

The first award recognized the ROI of HPCMP-supported efforts to improve the effectiveness of the DOD's armor and anti-armor portfolio. These efforts, led by DOD's science and technology laboratories, applied state-of-the-art computational technologies and hardware to reduce time and risk in developing and refining armor/anti-armor technologies, while improving the quality of information available to designers, end users and decision makers. HPCMP capabilities resulted in improvements to the department with a return on investment ranging from 257 to 585 percent.

The second award recognized a newly-developed high-fidelity, end-to-end framework for modeling fuel venting and injection in combustion engines. Precisely accounting for the sequence of events occurring from the moment the liquid fuel jet is introduced to combustion in the gas-phase allowed detailed modeling of strongly-coupled physical phenomena, including

primary and secondary break-up and droplet evaporation. The enhanced computational capabilities support high-speed aero-propulsive applications such as missile-fuel venting and scramjet liquid fuel injection simulations.

The DOD HPCMP provides the DOD 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 DOD by the U.S. Army Engineer Research and Development Center in Vicksburg, Miss. For more information, please visit the DOD HPCMP Web site at: www.hpc.mil.