NEWS RELEASE

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New Supercomputers at the Army Research Laboratory's DoD Supercomputing Resource Center

The Army Research Laboratory (ARL) Department of Defense (DoD) Supercomputing Resource Center (DSRC), one of five supercomputing centers in the Department of Defense High Performance Computing Modernization Program (HPCMP), is proud to announce the deployment of two new IBM iDataPlex supercomputing systems. The systems, named "Pershing" and "Hercules" are located at the ARL DSRC at Aberdeen Proving Ground, Maryland.

The ARL DSRC Pershing system is a 420 TeraFLOPS system with a total of 20,160 compute cores. The system is comprised of 1,260 nodes, each with dual 2.6 GHz Intel Sandy Bridge processors and contains eight cores per processor. The Pershing system has 40 terabytes of memory and 2.5 petabytes of usable disk storage.

The ARL DSRC Hercules system has a slightly smaller computational capability, but has more memory to support specific models of interest to the DoD. Hercules has a total of 17,472 compute cores comprised of 1,092 nodes, each with dual 2.6 GHz Intel Sandy Bridge processors and eight cores per processor. Hercules has 2.3 petabytes of usable disk storage and 70 terabytes of memory.

"The Army's Research Laboratory has a rich history in the development of technical computing dating back to the ENIAC and to ballistics calculations done by the Army in the early days of computing," said John West, director of the HPCMP. "These systems continue ARL's tradition of deploying leading technologies that are directly applicable to the DoD and Army mission, and are a key part of the HPCMP's computational technology portfolio which is receiving a substantial, multi-petaFLOPS upgrade this year."

The new systems extend the ARL DSRC's aggregate computational capability to just over one PetaFLOPS. These new systems, named for Army tanks platforms, augment the Center's other production supercomputing systems in support of DoD research, development, test and evaluation programs in a diverse array of disciplines including: computational structural mechanics, computational chemistry, computational fluid dynamics, signal/image processing, network data analytics, computational electromagnetics, as well as several others.

The new systems are housed in the DSRC's newly completed computing facilities at ARL. This facility was dedicated in a ceremony last month, which was attended by a number of dignitaries

including Sen. Ben Cardin, (D-Md.) and Dr. Patricia Falcone, associate director for National Security and International Affairs in the White House Office of Science and Technology Policy. As part of the ceremony, tours, presentations and exhibits were conducted that featuring the laboratory's 70-year computing history, networking history, and the DSRC's current supercomputing systems and computational science research projects. Selected examples of the ARL's rich computing history were on display, including parts of the original ENIAC, a Cray-2, a CM-5, and other significant high performance computing systems.

As a component within the HPCMP, the ARL provides a world class supercomputing center committed to providing the resources necessary for DoD scientists and engineers to complete their research, development, testing and evaluation projects. Since the Program's inception in the early 1990s, the ARL DSRC has supported the Warfighter by combining powerful computational resources, secure interconnects, and application software with outstanding services, expertise, and experience.

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