



**FOR IMMEDIATE RELEASE**

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**Partnership Between University of Maryland and U.S. Army Research Laboratory Harnesses the Power of Defense Supercomputing to Create Opportunities for Scientific Discovery**  
*Strategic Alliance Offers Accessible, Enhanced HPC Resources  
Benefiting Researchers, Higher Education, and National Security*

COLLEGE PARK, MD – The University of Maryland (UMD) and the U.S. Army Research Laboratory (ARL), the central laboratory that provides world-class research for the Army, today announced a strategic partnership to provide high-performance computing (HPC) resources for use in higher education and research communities.

As a result of this synergistic partnership, students, professors, engineers, and researchers will have unprecedented access to technologies that enable scientific discovery and innovation.

The partnership was formed under ARL's "Open Campus" initiative, which aims to build a science and technology ecosystem. Mid-Atlantic Crossroads (MAX), a University of Maryland center that operates a multi-state advanced cyberinfrastructure platform, will connect ARL's high-performance computer "Harold" to this ecosystem on its 100-Gbps optical network. Collaborators from the UMD, MAX, and ARL communities will be able to build research networks, explore complex problems, engage in competitive research opportunities, and encounter realistic research applications.

"The UMD/MAX-ARL partnership provides a unique opportunity for both organizations to create a national model of collaboration in the HPC field," said Tripti Sinha, MAX Executive Director and UMD Assistant Vice President and Chief Technology Officer. "Collaborative partnerships are key to maximizing our technological potential and ensuring our nation's strength and competitiveness in the critical fields of science and research. UMD and MAX are very excited to work with ARL on this endeavor."

In addition to increasing accessibility and enhancing HPC resources for researchers, the collaboration between UMD/MAX and ARL will also support innovation activities conducted by private and startup companies that connect through MAX's infrastructure.

"Our goal is to take the cutting-edge computational power that we use for defense research, development, test, and evaluation and put that in a place that will benefit the wider scientific community," said Dr. Raju Namburu, Chief, Computational Sciences Division, Computational and Information Sciences Directorate, U.S. Army Research Laboratory.

UMD, MAX, and ARL's combined effort not only benefits the mid-Atlantic region, but also aligns with the federal government's strategic initiative to maximize the benefits of supercomputing for economic competitiveness, scientific discovery, and national security. An executive order announced

in July 2015 established the National Strategic Computing Initiative (NSCI) to support the United States in its efforts to remain a leader in the development and deployment of HPC systems.

“The university is in full support of the federal government’s leadership on this critical HPC initiative,” said Eric Denna, UMD Vice President and Chief Information Officer. “The creation of the UMD/MAX-ARL partnership is just one step in the promotion of HPC innovation, and UMD will continue to actively participate by contributing technical expertise and sharing knowledge with our key collaborators.”

The UMD/MAX-ARL partnership also lays the foundation for the organizations to expand their reach and make additional HPC resources accessible to the communities they serve.

Harold will become available once the machine is scrubbed, declassified, and brought into ARL’s demilitarized zone, or perimeter network. Under ARL and UMD’s collaborative research development agreement (CRADA), the HPC resource will be allocated to MAX’s Internet Protocol (IP) address space and will be accessible to the collective communities of UMD, MAX, and ARL’s Open Campus. As a result, researchers will have supercomputing-caliber computational capability and leading-edge advanced networking research at their fingertips that is designed for application development and networking experiments.

“This joint research venture with UMD/MAX will leverage ARL’s high-performance resources and the Army’s groundbreaking research programs in emerging scientific computing architectures, such as non Von Neumann computing architectures, distributed ad-hoc computing, and programmable networks,” Namburu said. “The result is a unique opportunity for synergistic collaboration between two prominent organizations on the forefront of research and innovation.”

The ultimate goal is to share HPC resources for the good of the community and ensure that groundbreaking collaborative projects have the necessary tools.

“An HPC resource like Harold will significantly enhance the capabilities of the University of Maryland’s faculty and student researchers,” said Patrick O’Shea, UMD Vice President and Chief Research Officer. “The partnership between UMD/MAX and ARL opens up connections for our community and enables research opportunities. We are eager to see the expansion of our creative ecosystem.”

### **About University of Maryland (UMD)**

The University of Maryland is the state's flagship university and one of the nation's preeminent public research universities. A global leader in research, entrepreneurship and innovation, the university is home to more than 37,000 students, 9,000 faculty and staff, and 250 academic programs. Its faculty includes three Nobel laureates, three Pulitzer Prize winners, 56 members of the national academies, and scores of Fulbright scholars. The institution has a \$1.8 billion operating budget and secures \$550 million annually in external research funding. For more information about the University of Maryland, visit [www.umd.edu](http://www.umd.edu).

### **About Mid-Atlantic Crossroads (MAX)**

Mid-Atlantic Crossroads (MAX) is a center at the University of Maryland that operates a multi-state advanced cyberinfrastructure platform. MAX's all-optical, Layer 1 core network is the foundation for a high-performance infrastructure providing state-of-the-art 100-Gbps network technology and services. MAX participants include universities, federal research labs, and other research-focused organizations in the Washington and Baltimore metropolitan areas. MAX serves as a connector and traffic aggregator to the Internet2 national backbone and peers with other major networks. Its mission is to provide cutting-edge network connectivity for its participants, tailored and generic data-transport solutions, and advanced services to accommodate and optimize large data flows and to facilitate network and application research. For more information about MAX and MAX services, please visit [www.maxgigapop.net](http://www.maxgigapop.net).

### **About U.S. Army Research Laboratory (ARL)**

The U.S. Army Research Laboratory is part of the U.S. Army Research, Development and Engineering Command, which has the mission to ensure decisive overmatch for unified land operations to empower the Army, the joint warfighter and our nation. RDECOM is a major subordinate command of the U.S. Army Materiel Command.

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