



HPCMP New Users' Guide

“Who Are We?”

HPCMP Ecosystem

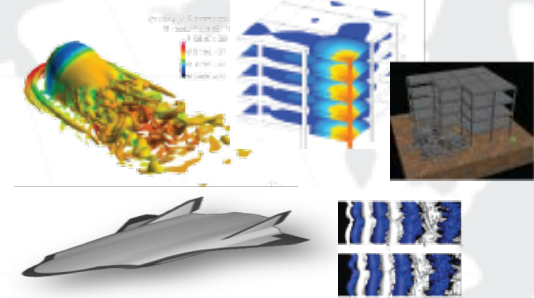
Users



A technology-led, innovation-focused program committed to extending HPC to address the DoD's most significant challenges

Results

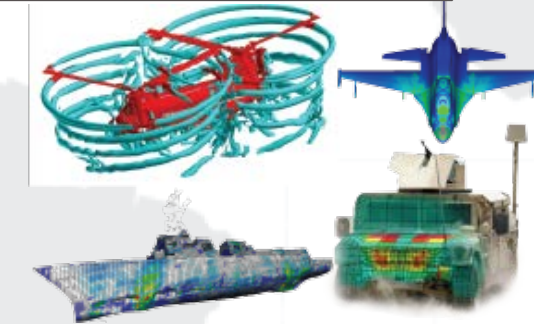
Science and Technology



Test and Evaluation



Acquisition Engineering



DoD Supercomputing Resource Centers (DSRCs)

(DSRCs)

- AFRL DSRC: U.S. Air Force Research Laboratory DSRC
- ARL DSRC: U.S. Army Research Laboratory DSRC
- ERDC DSRC: U.S. Army Engineer Research and Development Center DSRC
- Maui High Performance Computing Center DSRC
- NAVY DSRC: U.S. Navy DSRC

Networking and Security

Defense Research & Engineering Network (DREN)



Computer Network Defense, Security R&D, and Security Integration



Software Applications

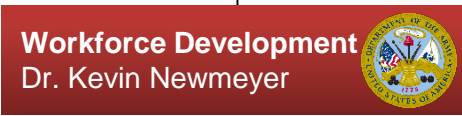
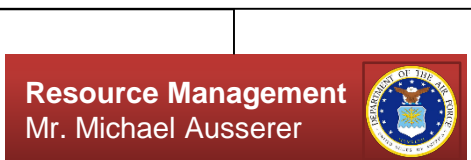
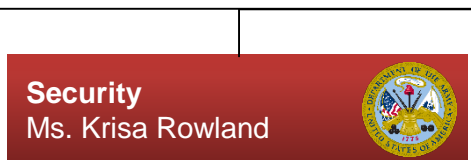
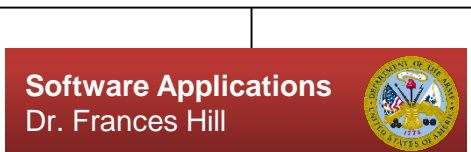
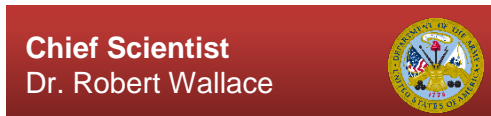
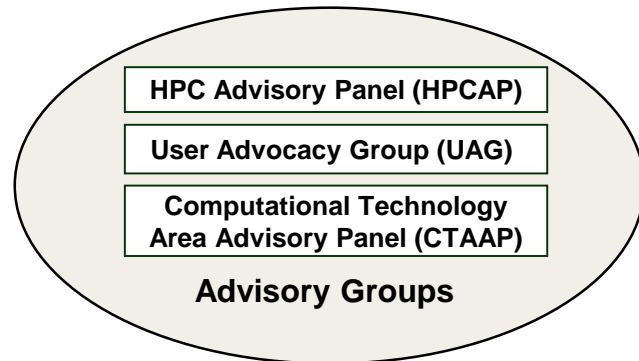
- Core Software
- Computational Environments
- Education and Training
- HPC User Support



HPCMP Value Proposition

- The DoD High Performance Computing Modernization Program (HPCMP) provides science and technology, test and evaluation, and acquisition engineering community customers with a full ecosystem consisting of world-class high-performance computational resources, scientific software, and reliable networking supported by sound cybersecurity practices.
- This HPC ecosystem enables the development and use of physics-based modeling and simulation, and high-performance data analytics to optimize the acquisition and sustainment of innovative weapon systems.
- We enable the Department of Defense to maintain the US strategic warfighting advantage over current and future adversaries.
- We provide solutions that are cost-effective, flexible and responsive. Our success is measured by our ability to positively impact our customers' achievement of their critical mission objectives.

HPCMP Leadership



DoD Supercomputing Resource Centers (DSRCs) Systems

- **Centennial** – SGI ICE XA
- **Excalibur** – Cray XC40
- **Hellfire (C)** – SGI ICE X

ARL



- **Lightning** – Cray XC30
- **Thunder** – SGI ICE X

AFRL



- **Onyx** – Cray XC40/50 (includes Knights Landing nodes)
- **Topaz** – SGI ICE X
- **Copper** – Cray XE6m (Open System)

ERDC



- **Armstrong** – Cray XC30
- **Bean (C)** – Cray XC40
- **Conrad** – Cray XC40
- **Gordon** – Cray XC40
- **Shepard** – Cray XC30

NAVY



- **Hokule'a** – IBM Power8

MHPCC



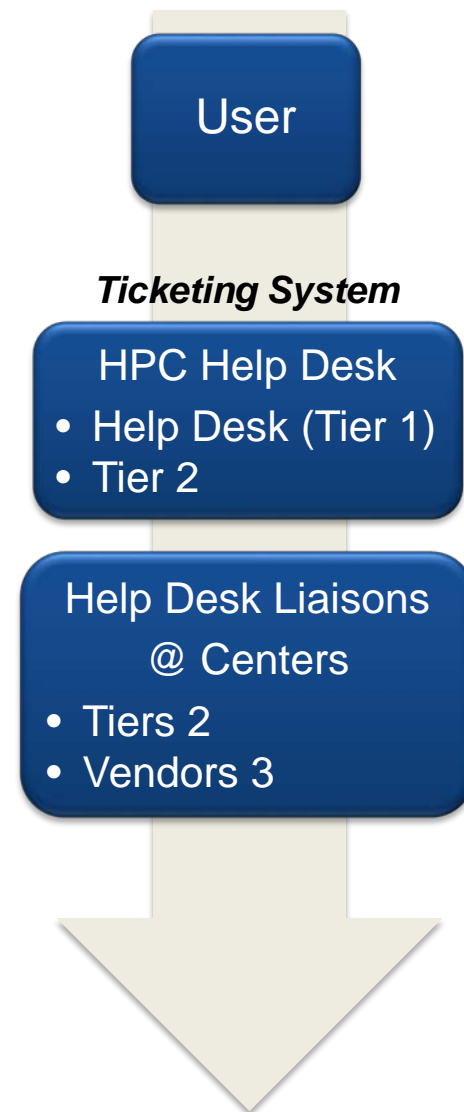
For additional information on each of the Centers and their capabilities, visit <https://centers.hpc.mil/>

Open Research System (ORS)

- **These systems operate entirely at the unclassified level, with neither sensitive nor classified data applications**
- **The Cray XE6 (Copper) at the ERDC DSRC is the only “open” system**
- **No sensitive data can be stored or used on Copper**
 - A user’s government point-of-contact (PL, APL, or Project Government Sponsor) on each project must agree to the Open Systems User Agreement within the Portal to the Information Environment (pIE), stating their work is publicly releasable

HPC Help Desk

- Telephone, user-portal, and email support
- Single ticket tracking system across all sites
- Tier 0 – Self-help/Knowledge Management System
- Tier 1 and some Tier 2 support – The HPC Help Desk
- Tier 2 support - Centers
- Tier 3 support - original equipment manufacturers (OEMs), User Productivity Enhancement, Technology Transfer, and Training (PETTT), & Centers



HPC Help Desk

The HPC Help Desk Contact Information
<http://centers.hpc.mil>

Ticket System: <https://helpdesk.hpc.mil>
E-mail: help@helpdesk.hpc.mil **Phone:**
1-877-222-2039



HPC Help Desk Hours of Operation

<i>Time Zone</i>	<i>Daylight Savings Time</i>	<i>Standard Time</i>
Eastern	0800-2300	0800-2300
Central	0700-2200	0700-2200
Pacific	0500-2000	0500-2000
Alaska	0400-1900	0400-1900
Hawaii-Aleutian	0200-1700	0300-1800

Summary

- The HPCMP provides a premier high-performance computing ecosystem to the RDT&E and Acquisition Engineering communities, tailored to customer requirements
- A broad range of customer missions are targeted across the DoD
- Strategic engagement with Service/Agency senior leadership to enhance HPCMP linkage with highest mission priorities

