Oak Ridge Industrial HPC Partnerships Program

Presented by

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We provide access to…

Talent

Training

Tools

So that you can

Accelerate innovation / reduce risk

Lower costs

Solve the unsolvable

Predict the future

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Why companies want to work with us

Access to computational and domain expertise not available elsewhere

Access to leadership-class systems and open software that scales

Access to expert training not available internally

Managed by UT-Battelle
for the U.S. Department of Energy

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Making our HPC tools and expertise available to industry

1. **HPC User facilities:** you apply for time to run your problem on our supercomputers.

2. **Cooperative research:** we collaborate to solve your problem.
   - In-depth assistance with scaling your code; algorithmic development; developing new methods; new code design.
   - Could include access to our HPC systems

3. **Sponsored research / "Work for Others":** We do the research for you.

Key Points About Our Program

- **Working with firms actively engaged in modeling and simulation…and taking them to their next HPC level (i.e. you don't have to be at a "petascale" level)**

- **Procedures to protect proprietary information**

- **Procedures to comply with export control regulations**

- **Different pathways to apply for time on our HPC systems, depending on the amount of time needed and the complexity of problem.**
  - **Rules permit no-cost and cost-recovery access**

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Problems to Bring to Our User Facilities:
High Risk – High Return

Competitive Opportunity
(Break out of the Pack!)

Strategic

High Risk

Breakthrough Innovation

High Return

Moderate Risk and Innovation

Routine Low Risk

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What companies are doing with us

- **Scaling current problems for greater accuracy**

- **Tackling new, competitively important problems that can not be addressed with in-house systems/software**

- **Refreshing internally developed software and testing it at scale**

ctd…

What companies are doing with us

- **Investigating government & university codes that already scale**

- **Testing pathways to build an internal ROI case for additional system and/or software**

- **Increasing their understanding of -- trying out leadership HPC system**

- **Enhancing computational skills**

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2010-2011 Industry Jaguar Users

Companies ranged from small to large:

- **Small business**
  - – **Ramgen**
  - – **BMI/SmartTruck Systems**
  - – **Caitin**
- **Fortune 50**
  - – **GE (#4),**
  - – **GM (#15)**
  - – **Ford (# 10)**
  - – **Procter & Gamble (26)**
  - – **Boeing (#28)**
  - – **United Technologies (#37)**
  - – **Pratt & Whitney (UT subsidiary)**
- **Fortune 100**
  - – **Northrop Grumman (#61)**

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Contact

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