

EXASCALE COMPUTING PROJECT

# **Exascale Computing Project Industry Council**

### March 6-7, 2017

## **Meeting Agenda**

Note that this agenda is designed to be highly interactive with discussion on each topic. More time can be spent on certain areas if discussion warrants.

#### Monday, March 6, 2017

- **5:30 p.m. Tour of Advanced Photon Source** Stephen Streiffer, Associate Laboratory Director, Photon Sciences (Meet in lobby of Guest House at 5:30 for shuttle bus.)
- 6:30 p.m. ECP Working Dinner at Argonne Guest House Overview of Argonne Priorities and Resources Paul K. Kearns, Interim Director, Argonne National Laboratory
- 8:30 p.m. Adjourn

### Tuesday, March 7, 2017

- 7:30 a.m. For those needing a ride to Conference Center: meet in lobby of Guest House for shuttle bus.
- 7:45 a.m. Check-in/Working Breakfast Meeting Kick-off at Argonne Conference Center Room 1404-1405 Michael McQuade, ECP Industry Council Chair David Martin, Co-Executive Director, Industry Council Suzy Tichenor, Co-Executive Director, Industry Council
- 8:30 a.m. Introduction of ECP Leadership Team and ECP Industry Council Members
- **9:00 a.m. U.S. Exascale Computing Project** Overview: What is it, why do we have this, and how is it structured? *Paul Messina, ECP Project Director*



#### **10:00 a.m. ECP Focus Area: Applications Development** *Doug Kothe, Director, ECP Applications Development*

Questions to Consider:

- How does modeling and simulation fit into your business model? Can you give us some examples?
- How does modeling and simulation enter into your firm's business/decision making process? What is the "workflow?"
- What are your "killer app" problems?
- Where are your "go to" technologies for applications?
- Which data analytics applications are you using?
- 10:30 a.m. Break

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#### 11:00 a.m. ECP Focus Area: Hardware Technology

Jim Ang, Director, ECP Hardware Technology

Questions to Consider:

- Open Source is expanding into hardware technology as well, e.g. Facebook's Open Compute Project, UC-Berkeley's RISC-V, Elon Musk's opening of Tesla's battery technology portfolio, etc. What are your thoughts on the role of open source for your company?
- How important are public, private and hybrid cloud capabilities to your HPC computing strategy?

### 11:30 a.m. ECP Focus Area: Software Technology

Rajeev Thakur, Director, ECP Software Technology

Questions to Consider:

- How can the software technologies developed in ECP (i.e., programming models, tools, libraries, etc.) be transitioned for gainful use by industry? And vice versa: What industry efforts can ECP leverage in this area?
- What software challenges does industry foresee at the Exascale level that are not being addressed by current ECP efforts?



**12:00 p.m.** Working Lunch: Global Competition in Leadership Computing: Exascale Projects Around the World *Earl Joseph, Program Vice President, IDC & Executive Director HPC User Forum* 

**1:30 p.m.** ECP Focus Area: Exascale Systems Terri Quinn, Director, ECP Exascale Systems

Questions to Consider:

- How can the ECP project optimize its hardware investment to ensure it is helpful to industry as well as to DOE?
- 2:00 p.m. ECP Project Management Kathlyn Boudwin, Director, ECP Project Management
- 2:30 p.m. Industry Council Discussion and Response to Leadership Team Questions Michael McQuade, ECP Industry Council Chair

Questions to Consider:

- Are there ways you'd like to engage that we may not have discussed today?
- How can we best keep you and industry more broadly informed?
- Is there something that industry thinks would add value to the project that we haven't discussed?
- **3:15 p.m.** Next Steps David Martin, Co-Executive Director, Industry Council Suzy Tichenor, Co-Executive Director, Industry Council
- **3:30 p.m.** Closing Remarks Michael McQuade, ECP Industry Council Chair Paul Messina, ECP Project Director
- **3:40 p.m. Tour of Argonne Leadership Computing Facility** *Mike Papka, Director, Argonne Leadership Computing Facility*
- 4:15 p.m. Adjourn