

10¹⁸ INTERNATIONAL
EXASCALE
SOFTWARE PROJECT



Draft IESP Maui Agenda 10/11/10

Sunday, October 17th On your own arrive at Wailea Beach Marriott Resort & Spa in Maui, HI.

6:00 – 8:00 pm Reception/light finger food at Marriott

Monday, October 18th

8:30 am Registration and light breakfast

8:45 am Welcome, Objectives and Organization of the meeting –
Jack Dongarra and Pete Beckman

9:00 am DOE's Exascale efforts – **Barb Helland**

9:20 am Exascale Software Center – **Pete Beckman**

9:40 am Japanese efforts – **Satoshi Matsuoka**

10:00 am Report on Chinese Computing efforts – **Xuebin Chi**

10:20 am **Break**

10:40 am EC and European Initiatives and Focus on EESI - **Jean-Yves Berthou**

11:10 am Exascale Computing, Software and Simulation: Objective in FP7
ICT Call 7 – **Patrick Aerts**

11:30 am PRACE Initiative – **Lennart Johnsson**

11:50 am Square Kilometre Array – **Tim Cornwell**

12:10 – 1:10 pm **Lunch**

1:10 pm Vendor's Exascale Centers (20 mins each)

Peg Williams, Cray;

Ross Nobes, Fujitsu;

Robert Wisniewski, IBM;

David Lombard, Intel;

Dan Reed, Microsoft;

Rob Schreiber, HP;

Jean-Francois Lavignon, Bull

3:30 – 3:50 pm	Break
3:50 pm	DOE Co-Design Centers Planning Effort (20 mins each) Robert Harrison , Chemistry; Andrew Siegel , Nuclear Energy; Alice Koniges , Fusion; Sriram Swaminarayan , Materials; Carlo Graziani , High Energy Density Physics
5:30 pm	Charge to group and expectations – Jack, Pete
7:00 pm	Banquet at the Marriott
Tuesday, October 19th	Morning focus on Co-Design
8:30 am	Light breakfast
9:00 – 10:30 am	Three breakout groups: Software, Hardware, and Apps Leaders: SW: Pete Beckman , HW: Peg Williams , Apps: David Keyes Each group goes off and discusses what they need from the other groups. <ul style="list-style-type: none"> • What do the software people need from the apps and hardware sides? • What do the apps team need from the software and hardware sides? • What do the hw groups need from the software and apps sides? • Also what they will give them for this.
10:30 am	Break
11:00 am – 12:30 pm	Plenary Each of the three groups from the morning reports on their discussions (20 minutes each). Then general discussion and what needs to be traded off.
12:30 pm – 1:30 pm	Lunch
1:30	Afternoon session focus on three topics via breakout groups (2.5 hours) <ol style="list-style-type: none"> 1. Integration of Co-Design, this group creates strawman outline and roadmap from the morning discussion (Leader: Pete Beckman, Bernd Mohr, Taisuke Boku) <ol style="list-style-type: none"> a. Outline of suggested processes, activities, technical issues to enable Co-design between HW vendors, SW developers, and Applications b. For co-design to impact the software for exascale

- systems, the software community will need to understand goals, roadmaps, and key performance characteristics for a variety of crucial applications, and provide feedback to HW vendors and applications on how that will impact the software designs, performance envelopes, programmability.
- c. This breakout group will put together an outline for how exascale software developers can work closely with the application and hardware groups to improve deployed systems.
 - d. What are the key performance metrics that need to be defined for system software?

2. IESP Organizational discussion and review (Leaders: **Bob Lucas, Satoshi Matsuoka, Jean-Yves Berthou**)
 - a. Critical issues for IESP
 - b. How will the IESP engage the three big projects, X-Stack, EESI, JP
 - c. What are the roles for various parts, ie ESC, EESI, IESP, Japan, etc.
 - d. Come up with big picture org chart of the IESP, and outline the goals for interaction, how we would work together, and transition IESP from brainstorming/barnstorming of the roadmap to the actual key organizational bits that interact with HW and App groups, and share system software bits and roadmaps.

3. X-Stack overview and current project plan (Leaders: **Rick Stevens, Patrick Aerts, Ryutaro Himeno**)
 - a. Overview of X-Stack plan
 - b. Discussion of roadmap and X-Stack work
 - c. How to work internationally
 - d. Timetable

4:00 pm

Final session breakout report and charge for next meeting
(1 hour; 20 mins for each group above)

Dinner on your own