**HPC User Forum Agenda**  
54th HPC User Forum  
September 15-17, 2014 – Seattle, Washington  
*Meeting Sponsors: Intel, HP, Altair, AMD, Bright Computing, Cray, Mellanox, Panasas, SUSE, and Terascale*

**Monday, September 15, 2014**  
5:00pm  Registration Starts  
6:30pm  Welcome Dinner Reception and Short Vendor Technology Updates

**Tuesday, September 16, 2014**  
7:15am  Networking Breakfast  
8:00am  Meeting Welcome and Announcements  
8:15am  HPC Market Update and IDC’s Top Growth Areas for 2014 and Beyond, Earl Joseph, Steve Conway and Chirag Dekate  
**Session Chair: Steve Conway**  
8:30am  Focus Area: HIGH PERFORMANCE DATA ANALYSIS  
This session will showcase examples of data-intensive HPC ("big data")  
- Building Scalable Technologies for Semantic Analysis, John Feo, Pacific Northwest National Laboratory  
- Real-Time Geospatial Rendering Project, Amit Vij and Nima Neghaban, GIS Federal  
- Update on HPC at PayPal, Arno Kolster and Ryan Quick, PayPal  
10:00am to 10:30am Break  
- Commercial Firms Exploiting Multi-Cluster Grids for HPC, Charlotte Crain, SAS  
- Using Genomic Sequencing and HPC to Help Save The Lives of Critically Ill Children, Shane Corder, Center for Pediatric Genomic Medicine  
- HPC in the Life Sciences, Jack Collins, National Cancer Institute  
12:00pm  HPC Vendor Technology: Update on IBM-Lenovo Deal, Brian Connors, IBM  
12:15pm  Networking Lunch  
**Session Chair: Jim Kasdorf**  
1:00pm  Technology Focus Area: CLOUD COMPUTING  
- New Developments in HPC Cloud Computing, Tim Carroll, Cycle Computing  
- Update on HPC Use on AWS, David Pellerin, AWS  
- Predictable Performance and Secured HPC Cloud Services through IBM Platform Computing, Charlie Gonzales, IBM  
- Revolutionizing Innovation With On-Demand HPC, Steve Legensky, Intelligent Light  
- Enterprise HPC on Microsoft Azure, Alex Sutton, Microsoft  
2:45pm  HPC in Poland, Marek Niezgódka, ICM/University of Warsaw  
3:15pm  Break  
3:45pm  **Emerging HPC Requirements and Major Trends Panel** -- Panelists will describe the top trends/factors that will influence the future of HPC. Moderator: Steve Conway  
4:30pm  **Disruptive Technologies Panel** -- Panelists will briefly present potentially disruptive technologies. Moderator: Earl Joseph  
5:15pm  Networking Break and Time for 1-on-1 Meetings  
6:30pm  Special Dinner Event at the Museum of Flight – Buses leave at 6:00pm and 6:15pm

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Wednesday, September 17, 2014

7:15am  Networking Breakfast
8:00am  Welcome: Jim Kasdorf, Earl Joseph and Steve Conway

Session Chair: Paul Muzio

8:05am  Focus area: ACCELERATORS/COPROCESSORS
- Industrial achievements on Blue Waters Using CPUs and GPUs, Seid Koric, NCSA
- Development of Intel MIC Codes in NWChem, Edoardo Apra, Pacific Northwest National Laboratory
- Experiences Using Intel Phi Coprocessors, Troy Porter, Stanford University
- Experiences Using Accelerators at ORNL, John Turner, ORNL

10:00am to 10:30am  Break
- Initial Experiences Programming Xilinx Virtex-6 FPGAs Inside Convey's HC01ex, Stephen Bique, Naval Research Laboratory
- Memory-Driven Near-Data Acceleration, Jan van Lunteren, IBM Research Labs, Zurich
- Advancing Science In Alternative Energy and Bioengineering With Many-Core Processors and Accelerators, Michael Brown, Intel
- Use of Many-Core Processors with the Berkeley GW Code, Jack Deslippe, Lawrence Berkeley National Laboratory

12:15pm  Networking Lunch
1:15pm  Focus area: LEADERSHIP COMPUTING – TODAY AND LOOKING FORWARD
- Cori: The NERSC-8 System, Jay Srinivasan, NERSC
- Ready for Takeoff or Preparing for a Soft Landing: HPC at HLRS and in Germany, Michael Resch, HLRS/University of Stuttgart

2:45pm to 3:15pm  Break
- HPC Directions at Boeing, Mark Anderson, Boeing
- Bits, Bytes and BTUs: Warm Water Liquid Cooling at NREL, Steven Hammond, NREL
- Results of Study Comparing Liquid Cooling Methods, Jon Summers, University of Leeds
- Update on Trinity System Procurement and Plans, Manuel Vigil, Los Alamos National Laboratory

5:00pm  Meeting Wrap-Up, Jim Kasdorf, Paul Muzio, Earl Joseph and Steve Conway