

HP-CAST

**HP Consortium for Advanced Scientific and Technical Computing
Word-Wide User Group Meeting
Scalable Computing Infrastructure (SCI) Organization**

**Hilton Portland & Executive Tower, 921 SW Sixth Avenue
November 13th - 14th, 2009**

HP-CAST 13

**World-wide User Group Conference with Participation of
NTIG (Nordic Technical Interest Group) & HP-CAST IBÉRICA**

Agenda Version 2.12

Thursday, November 12th - Registration & Get-Together

17:00 - 22:00	<i>Registration</i>	
19:00 - 22:00	<i>HP-CAST Welcome Reception</i>	<i>All Attendees</i>

Friday, November 13th - Conference

07:30 - 22:00	<i>Registration</i>
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**Session Chair: Frank Baetke
Plenum**

08:00 - 08:10	<i>HP-CAST Board Opening Remarks:</i> HP-Liaison HP-CAST President	Frank Baetke, HP Rudolf Lohner, KIT/SCC
08:10 - 08:30	<i>Welcome Keynote:</i> HP's Scalable Computing Infrastructure Organization (SCI)	Christine Martino, HP
08:30 - 08:45	HP HPC Directions	Scott Misage, HP
08:45 - 09:00	<i>Invited Keynote:</i> A three years history of CESGA. From Service to Scientific Challenge	Aurelio Rodriguez, Centro de Supercomputación de Galicia
09:00 - 09:15	<i>Invited Keynote:</i> Large systems have the same challenges, only more so	Gary Skouson, Pacific Northwest National Laboratory

09:15 - 09:25	The SHARCNET Sites and Grid in Canada: Status and Trends	John Morton, McMaster Univ., Canada
09:25 - 09:35	The National Supercomputing Centre and HPC Environments in Sweden	Niclas Andersson, NSC Christofer Wanner, GoVirtual
09:35 - 09:45	Minnesota Supercomputing Institute: Site and System Update	Birali Runesha, MSI

09:45 - 10:15	<i>Break</i>
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HP-CAST 13

Friday, November 13th – cont.

10:15 – 10:35	AMD Processor Technology & Roadmap Update	Jeff Underhill, AMD Bill Brantley, AMD
10:35 – 10:55	Intel Processor Technology & Roadmap Update	David Scott et al., Intel
10:55 – 11:05	NVIDIA Technology & Roadmap Introduction. Fermi: The Soul of a Supercomputer in a GPU	Sumit Gupta, NVIDIA
11:05 – 11:15	Windows HPC Server 2008 - Update and Future Roadmap	Ryan Waite, Microsoft
11:15 – 12:00	<i>HP Platform & Technology Trends: New Nehalem- and Opteron-based High-Density Servers and Blades (G6) Servers with Integrated Accelerators Scalable Data Center Infrastructure Interconnect Update Visualization Update</i>	Steve Cumings & Product Managers HP Scalable Computing Infrastructure Organization
12:00 – 12:20	Multi-core Platform Performance Measurements and Analysis Across Key Applications Segments	Dave Field, HP
12:20 – 12:30	HP-CAST Update: Competence and Collaboration Network - Structure and Future Directions	Frank Baetke, HP <i>Les Kramer, HP</i>
12:30 – 13:30	<i>Lunch</i>	

Focus Session 1: Relative Positioning of HP Storage System

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13:30 – 13:35	Focus Session Introduction	<u>Chair:</u> David Korf, HP
13:35 – 13:45	HP's Parallel File System Strategy and Product Portfolio	Ed Turkel, HP
13:45 – 14:05	Lustre® Parallel File System Update and Product Positioning	Andy Garside, HP
14:05 – 14:25	IBRIX Parallel File System Update and Product Positioning	Laurence Marsan, HP

HP-CAST 13

Friday, November 13th – cont.

Chair: Frank Baetke
Plenum

14:25 – 14:45	SCI Cluster Management Strategy and Roadmap Update (CMU)	Alanna Dwyer et al., HP
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14:45 – 15:15	<i>Break</i>	
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Focus Session 2: Energy Efficient HPC and Scalable Computing Solutions

Plenum

15:15 – 15:20	Introduction: Progress and Challenges of Energy Efficient Scalable Computing Solutions	Chair: Tahir Cader, HP
15:20 – 15:30	HPC Data Center Planning and Energy Efficiency	Mike Thomas, HP
15:30 – 15:50	Cloud Computing Future Group: Extreme and Scalable Computing	Mark Shaw, Microsoft
15:50 – 16:00	Power and Cooling Aware Job Scheduling with MOAB	Scott Hurst, Adaptive Computing
16:00 – 16:05	Large Site Experiences Planned Research with MOAB	Gary Skouson, PNNL
16:05 – 16:10	General Q&A	All Attendees & Speakers

16:10 – 16:30	<i>Invited Research Lecture:</i> Challenges and Solutions for Transparent Resilience in HPC	Frank Mueller, North Carolina State University
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16:30 – 16:55	Scalable Computing Trends: Clouds, Hosting and HPC – Synergy or Competition	Office of the CTO: Scott McClellan, HP Richard Kaufmann, HP
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16:55 – 17:00	Logistical Announcements and Updates for Saturday, Nov. 14th Adjourn for Friday	Rudolf Lohner, KIT Frank Baetke, HP
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19:00	<i>HP-CAST 13 Gala-Dinner</i>	
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HP-CAST 13 – Tutorials and SIGs

Saturday, November 14th

(Preliminary Allocation – Up to 4 parallel sessions planned)

08:00 – 09:00	<u>Tutorial A1:</u> Advances and Software Environments for Multi-core Processors	<u>Chair:</u> Dave Korf, HP Robert Stober, Platform Erik Hagersten, Acumem Michael Declerck, eXludus
09:00 – 10:00	<u>Tutorial A2:</u> Advanced Accelerator Hardware Developments	<u>Chairs:</u> Jim Bovay & Glenn Lupton, HP Mike Houston, AMD Dale Southard, NVidia
08:00 – 9:30	<u>Tutorial B1a:</u> A Forecast of Clouds: How HP and our Partners are Addressing Cloud Market Needs	<u>Chair:</u> Alanna Dwyer & Richard Kaufmann, HP Scott Hurst, Adaptive Comp. N. N., Platform
09:30 – 10:00	<u>Tutorial B1b:</u> Windows HPC Update & Roadmap	<u>Chair:</u> Alanna Dwyer Cathy Palmer, Microsoft
08:00 – 10:00	<u>Tutorial C1:</u> Advances in Interconnects: Focus on Infiniband, 10 GigEthernet and SHMEM Technologies – Part 1	<u>Chair:</u> Guodong Zhang, HP Gilad Shainer, Mellanox Philip Murphy & Lloyd Dickman, Qlogic
08:00 – 10:00	<u>Tutorial D1:</u> A Structured, Unified Approach to Multi-Core and Many-Core Computing	<u>Chair:</u> Michael McCool, Intel Anwar Ghuloum, Intel
10:00 – 10:30	<i>Break</i>	
10:30 – 12:30	<u>Tutorial A3:</u> Advanced Software Developments for Accelerators.	<u>Chairs:</u> Jim Bovay & Glenn Lupton, HP Jacques Philouze, Allinea Michael Wolfe, PGI Chris Gottbrath, TotalView Mike Weldon, Acceleware Stephane Bihan, CAPS
10:30 – 12:30	<u>Tutorial B2:</u> The Evolution from Grid- to Cloud-Portals in Enterprise Technical Computing	<u>Chairs:</u> Susanne Balle, HP & Simon Lonsdale, NICE Alban Schmutz, Oxalya
10:30 – 12:30	<u>Tutorial C2:</u> Advances in Interconnects: Focus on Infiniband, 10 GigEthernet and SHMEM Technologies – Part 2	<u>Chair:</u> Guodong Zhang, HP Peter Stultz & Aviv Cohen, Voltaire Graham Smith, BNT Benzi Galli, ScaleMP
10:30 – 12:30	<u>Tutorial D2:</u> Cluster Management with CMU	<u>Chair:</u> Alanna Dwyer, HP Bill Celmaster, HP Sebastien Cabaniols, HP

HP-CAST 13

Saturday, November 14th – cont.

12:30 – 13:30	<i>Lunch</i>	
Parallel Tracks		
13:30 – 15:00	Accelerator SIG Session	Chairs: Jim Bovay, HP & Jan-Philipp Weiss, KIT Stefan Möhl, Mitronics Tarek El-Gazhawi, George Washington University
13:30 – 15:00	Visualization SIG Session	Chairs: Glenn Lupton, HP & N. N. Alban Schmutz, Oxalya N. N., NICE
13:30 – 15:00	Cloud & Grid SIG Session	Chairs: Rudolf Lohner KIT & <i>Marcel Kunze, KIT &</i> Susanne Balle, HP Amnon Raviv, GigaSpaces Simon Lonsdale, NICE
13:30 – 15:00	Energy, Cooling & Infrastructure SIG	Chairs: Mike Thomas, HP & Tahir Cader, HP
13:30 – 15:00	European Peta-scale Cluster Computing Workshop Part 1 <i>(Attendance by Invitation Only)</i>	Chairs: Hugo Falter, ParTec & Johannes Diemer, HP
15:00 – 15:30	<i>Break</i>	
15:30 – 18:00	Large System SIG	Chairs: Gary Skouson, PNNL & Scott Misage, HP
13:30 – 15:00	European Peta-scale Cluster Computing Workshop Part 2 <i>(Attendance by Invitation Only)</i>	Chairs: Hugo Falter, ParTec & Johannes Diemer, HP
18:00	<i>HP-CAST Adjourn</i>	