The 9th LCI International Conference on High-Performance Clustered Computing

April 29 – May 1, 2008
April 28, 2008 Tutorials
National Center for Supercomputing Applications
University of Illinois at Urbana-Champaign
Urbana Illinois, USA

CALL FOR PAPERS, TECHNICAL PRESENTATIONS AND TUTORIALS
DEADLINE FOR SUBMISSION: PAPERS – Thursday, December 13, 2007
TUTORIALS – Monday, January 14, 2008
TECHNICAL PRESENTATIONS – Friday, January 18, 2008
TECHNICAL BRIEFS – Friday, March 14, 2008
POSTERS – Monday, January 28, 2008

The National Center for Supercomputing Applications (NCSA) is hosting the 9th LCI International Conference on High-performance Clustered Computing. This year's gathering will focus on the technical challenges facing the clustered computing community as we move into the petascale era. We will examine the promise of new technologies such as multi-core processors, acceleration coprocessors, advanced interconnects and high-performance I/O solutions. We will also explore the potential scaling and performance modifications necessary for systems, data and applications to achieve petascale class performance. It will feature experts discussing the state-of-the-art in various aspects of clustered computing including developing the hardware, software environments and applications to reach toward the petascale with a focus on the near-term activities taking this community along that path. This year, vendor participation will highlight the contribution of various companies to the rapidly expanding field of clustered computing.

This conference is the premier international forum to share information on management, administration, and scientific computing techniques on clusters. This 4-day event, including conference and tutorials, will feature a broad range of presentations and papers from HPC and large-scale cluster computing professionals in industry, academia, and government. Speakers will address efforts to integrate and develop science and engineering applications for large-scale clusters, to achieve maximum performance and scalability.

The technical program will include both peer-reviewed paper presentations and discipline- and industry-specific sessions offering researchers and industry leaders the opportunity to present their experiences with applications, tools, user environments, and administration of large-scale clusters. Presentations from industry are specifically invited.

The conference program committee is soliciting novel papers, insightful technical presentations and practical tutorials on a broad range of topics related to systems integration, operation and support, end user applications, tools, education and experiences.

The conference divides sessions into "Introductory", "Intermediate", and "Advanced" content to best cater to the breadth of experience of attendees and encourages submissions in all three of these areas. It also features a session on education topics such as the teaching of clustered computing and undergraduate and graduate programs that feature clustered computing. Educators are encouraged to submit papers detailing unique course-level and programmatic-level teaching efforts that they have instituted around growing needs for clustered computing competent graduates.

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Topics of interest include (but are not limited to):

Multi-Core Processors
Acceleration Coprocessors
Advanced Interconnects
High-Performance I/O Solutions
Unique Methods and Programs for Teaching Clustered Computing Concepts
Development and Use of Highly Parallel Applications
Porting Experiences
User Environments
Performance Evaluation, Analysis, and Optimization
High-Performance Applications and Libraries
Performance Tools
Compilers
Clusters and Education
Production Management of HPC Linux Clusters
Clusters in Data Centers
New Experimental and Commercial Clusters
Clusters in Heterogeneous HPC Environments
System Management and Administration
Resource Management
Tools for Building and Administering Clusters
Scheduling and Load Balancing
Parallel I/O, File Systems, and Storage
Networks, Interconnects, and Protocols
Security
Linux Kernel Modifications or Extensions
Meta- and Grid-Computing
Middleware for Clusters
Infrastructure: Space, Power, Cooling
Scalability
Other OS Strategies in Contrast to Linux
Visualization

KEY DATES

Papers (refereed)

Paper submission deadline:	Thursday, December 13, 2007
Author notification:	Friday, February 15, 2008
Final paper submission deadline:	Monday, March 17, 2008

Tutorials (half day or full day)

Tutorial submission deadline:	Monday, January 14, 2008
Presenter notification:	Friday, February 15, 2008
Final tutorial materials deadline:	Monday, April 7, 200

Technical Presentations (abstract only, not refereed)

Presentation submission deadline:	Friday, January 18, 2008
Presenter notification:	Friday, February 8, 2008
Final presentation materials deadline:	Monday, April 21, 2008

Technical Briefs (10- to 15-minute presentations on emerging issues)

Brief submission deadline:	Friday, March 14, 2008
Brief notification:	Monday, April 7, 2008

Posters (not refereed)

Poster submission deadline:	Monday, January 28, 2008
Poster notification:	Monday, February 18, 2008

For detailed information on submitting papers, presentations, tutorials or briefs, please see the conference web site at:
http://www.linuxclustersinstitute.org/conferences

Proposed papers will be selected on the basis of an extended abstract of 5 to 8 pages. Tutorials can come from a variety of areas but should provide practical information and/or training for the cluster community. Those interested in submitting tutorials for consideration should submit a 5- to 6-page abstract. Those interested in technical presentations for consideration should submit a 2- to 3-page abstract. For detailed information on submitting papers, presentations or tutorials, please see the conference web site at:
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STEERING COMMITTEE

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Henry Neeman – University of Oklahoma
Mike Pflugmacher – NCSA/UIUC
John Towns – NCSA/UIUC
Erik Scott – Shell Oil
Dan Stanzione – Arizona State University
Henry Tufo – Univ. Colorado at Boulder & NCAR

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