



**Association for  
Computing Machinery**

*Advancing Computing as a Science & Profession*

**Contacts:**

Virginia Gold  
ACM  
212-626-0579  
v\_gold@acm.org

SC07 Cluster Challenge Showcases Accessible Computing Tools

**SC|07 CLUSTER CHALLENGE SHOWCASES ACCESSIBLE COMPUTING TOOLS THAT  
ENHANCE INNOVATION AND COMPETITIVENESS**

New York – January 8, 2008 – At the first ever Cluster Challenge at SC|07 in November, undergraduates from six university teams, supported with hardware from their vendor partners, competed to demonstrate the accessibility of entry-level supercomputing. The contest showed that supercomputers, once the province of elite universities, government research labs, and a handful of large businesses, are accessible to people interested in pursuing science, simulation or modeling. The event demonstrates the immense potential for accelerating the pace of discovery and boosting competitiveness in the global environment.

The teams assembled clusters – hundreds of PC's all linked together in a fast network - on the SC|07 exhibit floor, and ran benchmarks and applications selected by industry and high performance computing (HPC) veterans. Top honors went to the University of Alberta in Edmonton, Canada using equipment loaned by SGI of Mountain View, California.

Brent Gorda, who chaired the first ever Cluster Challenge at SC|07, said the event sought to highlight the ease of use for this form of supercomputing as well as the power of current-generation hardware and the availability of software to make it all work. “Computer simulations are vital to everything from climate change to biofuels, from Hollywood movies to high performance golf clubs,” said Gorda, who is an architect with the Lawrence Livermore National Laboratory.

Although the challenge focused on scientific applications, Gorda pointed to a range of applications for cluster technology. “The hardware and software infrastructures have become extremely accessible. Financial companies use clusters for pricing models, energy companies rely on it to find oil, and pharmaceutical companies access it to simulate drug uptake in the body,” Gorda said. He noted that even for consumer items like golf clubs, cluster technology speeds the construction of leading-edge products, accomplishes world class testing and simulation, and brings new generations of products to market, keeping everyone at the top of their game. “This event illustrates that the technology can be had for low cost and without a PhD.,” he noted.

Of equal interest to the Cluster Challenge organizers is the impact of this technology on competitiveness in the

global economy. “We predict that this cluster technology will soon be considered critical to enhance competitiveness of businesses of all sizes and in all markets,” Gorda added.

A significant outcome of the contest was its impact on the curricula of the participating institutions. According to Gorda, fully half of the schools have decided to modify their undergraduate offerings in the future to include cluster and parallel computing classes.

The other teams competing in the SC|07 Cluster Challenge were:

- Stony Brook University and Dell, Inc.
- National Tsing Hua University (Taiwan) and ASUSTek Computer, Inc.
- University of Colorado and Aspen Systems, Inc.
- Indiana University and Apple Computer, Inc.
- Purdue University and Hewlett Packard Corp.

A second Cluster Challenge is slated for SC|08 November 15-21, in Austin, TX <http://sc08.supercomputing.org/> to be sponsored by ACM and IEEE Computer Society.

### ***About SC|07***

*SC|07, sponsored by ACM and IEEE Computer Society, is the premier international conference on high performance computing, networking and storage, will showcase how high performance computing, networking, storage and analytics lead to advances in research, education and commerce. The conference includes technical and education programs, workshops, tutorials, an exhibit area, demonstrations and hands-on learning. Visit us at <http://sc07.supercomputing.org>.*

### **About ACM**

*ACM, the Association for Computing Machinery <http://www.acm.org>, is an educational and scientific society uniting the world's computing educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.*

###