Utah High School Supercomputing Competition, Inc. 1239 Roosevelt Avenue Salt Lake City, UT 84105 <u>http://www.uhssc.org</u>

November 7, 2012

Dear Prospective UHSSC Team Mentor /Member:

I would like to take this opportunity to invite you and your team to participate in the 2013 Utah High School Supercomputing Competition. This competition provides an opportunity for Utah students to learn hands-on about the art of programming computer clusters. It is a consortium of the Center for High Performance Computing (CHPC) at the University of Utah, the Salt Lake Valley Science and Engineering Fair (SLVSEF), the Utah Education Network (UEN), and Utah High School Supercomputing Competition, Inc. (UHSSC), a 501(c)3 nonprofit corporation.

This year we have streamlined our computer clusters. The bulky 220VAC transformers from last year have been eliminated, the interconnect has been upgraded to Gigabit Ethernet, and the systems will be delivered with the Operating System and development tools pre-installed. This OS will be the Bootable Cluster CD Project's version of Debian Linux. There is extensive documentation and examples at the BCCD website at http://bccd.net/. You can also go to the *Shodor Foundation's* Petascale site for a complete listing and explanation of the parallel software applications included with your cluster. http://www.shodor.org/petascale/materials/modules/

There is no fee to enter this competition, but because of limited hardware, we will only be able to provide computer clusters to twelve high school teams. Any team wishing to participate must complete a simple application on our website at <u>http://www.uhssc.org</u>. The most important part of the application is the contact information for your team members and your team's adult mentor. Team mentors do not need to be conversant in computer systems, but it would be an advantage if they are!

There are two aspects to the Competition this year. The first aspect, the *Software Optimization Challenge*, is described in a separate document that is currently available at our website. Your team can start work on it immediately after receiving your cluster. The second aspect, the *Hotseat Challenge*, will be announced at the UHSSC competition at the University of Utah on March 20th. You will have 6 hours to complete this challenge. Both will be judged on which team produces the desired output in a minimum time.





The Awards

There will be two cash awards this year: a \$600 award that goes to the team that wins the Hotseat Competition, and a \$400 award that goes to the team winning the Software Optimization Competition. These two awards are exclusive: no one team can win both awards. If a single team does achieve the best time in both competitions, they will be given the Hotseat Award. The second place team in the Software Optimization Competition will be given the Software Optimization Award.

Finally, what you have to do to participate:

- 1) If you're a team, find a good Mentor! Someone with a Linux background would be helpful (but not necessary), and most importantly someone who will be willing to spend time with the team.
- 2) Complete the application at <u>http://www.uhssc.org</u> by Dec 30th, 2012.
- 3) Teams will be announced as the applications are received.
- 4) The Hotseat Competition will be held on March 20th at 9:00am on the sixth floor of the Rice-Eccles Stadium (<u>http://goo.gl/maps/IOwba</u>) at the University of Utah. The awards ceremony is co-hosted with the Salt lake Valley Science and Engineering Fair on March 22th at 7:00pm at East High School in Salt Lake City (<u>http://goo.gl/maps/r3SjX</u>).

I have attached several pictures from last year's competition. The winners of the 2012 UHSSC were:

- Systems Configuration Award: Skyline High School
- Software Optimization Award: CTEC Team #2
- Persistence Award: CTEC Team #2
- Creativity Award: North Summit High School

We hope to see you there! Email either me (Dan) or Kasimir with any questions.

Sincerely,

Kas & Pan

Dan McGuire, President UHSSC, Inc. (<u>dmcguire@uhssc.org</u>) Kasimir Gabert, CTO UHSSC, Inc. (<u>kasimir@uhssc.org</u>) UHSSC, Inc. is a Utah 501(c)3 nonprofit corporation <u>http://www.uhssc.org</u>

Center for High Performance Computing Salt Lake Valley Science and Engineering Fair Utah Education Network http://www.chpc.utah.edu http://slvsef.org http://www.uen.org







