

May 13, 2014

Al Kellie, Director
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Boulder, CO 80307-3000

Dear Al:

This is the customary summary letter to you after the latest meeting of the CISL High performance computing Advisory Panel (CHAP). Our meeting took place in the VisLab of the NCAR Mesa Laboratory on May 8, 2014. Sarah Ruth of the National Science Foundation (NSF) was able to be present for almost the entire meeting. We heard a presentation from Dave Hart on CISL activities, including a project to improve efficiency of commonly used models and a new way of sharing data between CISL users and those who lack direct access to CISL systems. Some problems continue with Mellanox cables on the Yellowstone supercomputer, but at a smaller and less disruptive scale than before. Preliminary plans are being formulated to procure the next large system for the NCAR-Wyoming Supercomputing Center (NWSC), which will be installed in a separate hall of the facility and allow overlap with Yellowstone of one to two years. Yellowstone is presently fully loaded with computing jobs, but the fraction of usage by the University Community is lower than would be expected on the basis of their existing allocations.

A main topic of the meeting was the CHAP review at its next meeting of the very large request for resources from the Climate Simulation Laboratory (CSL) by the Community Earth System Model (CESM). A scientific review at the level of the individual CESM Working Groups is likely to be undertaken by the CHAP. As usual, conflicts of interest are expected to be carefully screened out of the reviewing process, although this may be a more difficult task than with University Community requests to the CSL.

The CHAP reviewed 3 CSL requests totaling about 55 million Yellowstone core-hour from the University Community as its first order of business in recommending allocations. The process was similar to regular CHAP reviewing but with more reviewers per request and some discussion of the priority of the science objectives within each request. (All requests must now have NSF approved grants in order to apply for CSL resources). About 52 million core-hours were recommended for support.

The CHAP then began its usual task of reviewing non-CSL University computing requests, for which there were 27 requests totaling some 69 million core-hours. This amount was approximately equal to the total available core-hours. A significant number of requests were for about one year or possibly two based on automatic no-cost extensions of their NSF grants. Most of the requests were adequately justified. Some requests were lacking in detail but were recommended for sufficient support in view of very short remaining periods of intended use or their responses to reviewer questions sent back to the requesting scientists by Dave Hart. A total of about 58 million core-hours were recommended for approval to the CISL Director. The next CHAP meeting is expected to have more requests than can be accommodated with the available resources, as is usually the case at CHAP meetings.

During a final discussion period, the CISL Director described budgetary options for continued support of the CSL; and he also elaborated further on the upcoming configuration of the NWSC to support two supercomputing systems during a period of overlap.

The next meeting of the CHAP will be on October 16, 2014. The CHAP looks forward to the challenge of reviewing the University Community and the CESM CSL requests, in order to continue supporting many outstanding scientific projects targeting the Yellowstone system.

Respectfully submitted,
Bert Semtner
CHAP Chair

cc: Anke Kamrath, Rich Loft, Dave Hart, Jim Hurrell, Sarah Ruth, CHAP members