

**MINUTES**  
**Advisory Committee on Research Computing**  
**22 February 2005 at 2:30 PM**  
**352 Adelbert Hall**

**Attendees:** Mark Adams, Iwan Alexander, Roger Bielefeld, Pamela Davis, Brendan Elliott, Joseph Koonce, Lawrence Krauss, Meral Ozsoyoglu, Matthew Sobel, Jiayang Sun.

The meeting was called to order by L. Krauss at 2:38 PM.

**New business:**

1. The minutes of the meeting of 11 January 2005 were approved with changes.
2. R. Bielefeld offered for consideration a draft set of guidelines for awarding Provost matching funds for high performance computing based on the committee's discussion at its January meeting. The committee endorsed the following modified version of the guidelines, which will be distributed to all Deans for further distribution to all department chairs and all faculty:

The ACRC will accept proposals from Case faculty for Provost matching funds three times a year, with deadlines of April 1, September 15, and December 1. Submission should take the form of an email sent to the chair of ACRC that provides (1) name and contact information for the applicant, (2) the amount of matching funds requested, (3) the source and amount of the "local" matching funds from either the applicant's department chair or dean, (4) description of the equipment to be purchased with the funds, (5) statement describing how the equipment will be accessible via a centrally administered mechanism for sharing with other Case researchers, (6) a description of the research to be conducted, and (7) the source of the external funds to be matched. The ACRC will hear the proposals at its next meeting after each of the three deadlines, with the ACRC chair distributing the proposals to be heard to all committee members via email at least five days prior to the date of the meeting or within two days of the deadline, whichever is later. No single match will exceed \$25K. No single applicant will be awarded more than \$40K in any single fiscal year (July 1 – June 30). Total university-provided matching funds will not exceed the funding provided by the external agency. Matching funds will be awarded only if funds are awarded from the external funding agency. The committee will base its decision on the following factors: (1) new opportunities created by the matching funds that would not otherwise be provided by the grant, (2) improvement of the computational infrastructure for research at Case, (3) opportunities provided by the equipment to explore a central computational and/or storage grid at Case.

3. R. Bielefeld offered for consideration four proposals expressing ACRC support for some of the initiatives in research computing in which ITS is engaged. Discussion of these four proposals turned into a discussion of the possibility of creating a true supercomputer facility at Case without a vote, although no objections were raised to the proposals.

**Proposal A to the Advisory Committee on Research Computing**  
**22 February 2005**

The ACRC endorses the ongoing investigation into the feasibility of ITS offering central support to the Case community for the hosting and administration of computational resources used in research. In particular, these services should be focused in the areas of hardware hoteling services and server/cluster administration services.

By “hoteling services”, we mean that ITS should make central, environmentally controlled, and secure data center space available for location of researcher-owned computer equipment. Data center services, such as conditioned power with UPS protection against power outage, temperature/humidity control, network connectivity, physical security, network firewall security, and 24/7 status monitoring should be available. This space should be designed and built out so that equipment owners have 24/7 access to resources that they are self-administering.

By “server/cluster administration services”, we mean that ITS should make available, on a set of standardized hardware and operating system platforms, complete hardware and operating system administration services for researcher-owned computer systems. These systems would be located in central ITS in order to provide proper environmental controls and security.

For each of these services, appropriate service level agreements should be defined in collaboration with ACRC and possible financing models should be developed. Leveraging of existing ITS services, planned services, and staffing should be investigated as a means of keeping costs low while providing the required services.

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**Proposal B to the Advisory Committee on Research Computing  
22 February 2005**

The ACRC recognizes the critical need for a centrally administered storage and backup service for servers and workstations at Case, including researcher-owned high performance computational resources. Although this service is needed campus-wide for faculty, staff, and students, the specific needs of the research community must be addressed including especially the need for large amounts (i.e. terabytes) of low-cost storage, especially on short-term bases.

Assessment of appropriate level of service and cost structure should be developed in cooperation with this committee. Use of existing ITS services or planned services should be made whenever possible to achieve the required ends.

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**Proposal C to the Advisory Committee on Research Computing  
22 February 2005**

The ACRC recognizes the importance of a campus collaboration/computational/storage grid and endorses the ongoing investigation into alternative approaches to the organization of such a grid, with connection to regional, national, and international grid efforts. A campus grid is expected to naturally leverage our network and our ability to provision bandwidth on campus and regionally. Integrated into the grid effort should be collaboration software that can be used by Case faculty and their off-campus colleagues to facilitate joint research.

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**Proposal D to the Advisory Committee on Research Computing  
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ACRC endorses ITS efforts in deploying and operating a high performance computing cluster for shared, campus-wide use. Cluster operations policies for this pilot cluster should be developed in consultation with knowledgeable users of similar facilities on campus, knowledgeable providers of such services on campus, and other universities that are providing similar services. Strategies for

growing the central facility and for funding models should be created in close consultation with the committee.

4. The committee decided to conduct a survey of faculty to determine how they met their research computing needs in 2004, how much they spent on meeting these needs in 2004, and their expectations and desires related to central support for research computing at Case. L. Krauss will provide the questions and R. Bielefeld will use ITS resources to distribute the questions, collect the response, and report the results.

**Announcements:**

R. Bielefeld announced the organization of a series of lectures on high performance computing and grid computing distributed in collaboration with the EECS department. Suggestions for speakers who can present on their research that was enabled by a centrally administered high performance computing facility are requested. The first lecture (by Gary Bettleline, Professor of Computer Graphics Technology and Associate Vice President for Discovery Resources at Purdue) is being planned for April 14.

R. Bielefeld announced the organization of a visit by representatives of the Ohio Supercomputing Center, planned for March 25.

R. Bielefeld announced that he will be attending the Statewide Users Group at OSC on March 8 and invited members interested in attending to contact him.

R. Bielefeld announced that there is interest on the part of the Associate Vice President for Collaborative Research and Engagement in ITaP (IT at Purdue) to explore IT-enabled collaborations between the two universities.

The next meeting will be held in March. Details to follow.

The meeting was adjourned at approximately 3:35 PM.

Submitted by Roger Bielefeld