RACC meeting
April 24, 2008
3:30-5pm NUL Forum Room

Present: Tom Board, Betty Brugger, Robert Carlton, Rex Chisholm(c), Holly Falk-Krzesinski(a), James Hurley, Vicky Kalogera, Marv Lofquist, Franziska Lys, Mort Rahimi, Mark Satterthwaite, George Schatz, Jean Shedd, Ingrid Stafford, Patricia Todus
(c) = videoconference from Lurie 7-127; (a) = audio bridge

Agenda:
1. Status initiatives underway
2. Possible expansions of data center floor space
3. Subcommittee reports
4. Longer-term planning items

Mort Rahimi opened the meeting and asked Tom Board to address items 1 & 2.

1. Status of data center initiatives

= LG87 - Tom reported that construction had begun in LG87 and would be intensifying over the next few weeks. As yet, there is no decision on which equipment will be housed in LG87 initially. In response to a question, Tom said that LG87 was sized for 16 racks of equipment at 12kW per rack, but that some additional floor space had been created by removing a wall - so within the limitations of power and cooling, it may be possible to add another rack. Over time, as research racks consume more power, the number of racks accommodated in LG87 will necessarily trend downward.

= Evanston data center cooling - The Evanston data center HVAC project was out to contractors for bid refresh and could be concluded within a week, with work beginning shortly thereafter. Tom reviewed the extent of the project and its necessary coordination with the project on power (next item). The cooling improvements are expected to be completed by Fall 2008.

= Evanston data center power - Facilities Management and NUIT are expecting a proposal shortly from an engineering firm for the design work to remedy the existing deficiencies in the power plant and add a limited amount of additional power to the data center. Goal is to complete this work by the end of calendar 2008. The estimated additional power and cooling (above) would support 7 to 10 research racks.

= Chicago data center backup generator - Facilities Management is working to replace the current temporary generator with a larger one. This will allow more production equipment to be placed at the Chicago data center, either from Evanston or other points of demand. This project is targeted for completion
within 6 to 8 weeks. Capacity from this change is estimated to support 7 research racks. Rex Chisholm asked that priority be given to Chicago campus applications for this resource when it becomes available. Tom Board and Mort Rahimi commented that policies related to central housing of research equipment are being formulated.

2. Possible expansions of data center floor space

= Chicago - modeling 1500 SF. Tom Board described further analysis of the Chicago data center. The capacity of the existing utility feed will be increased in August and the University will have the option to use the additional power if floor space is expanded. Modeling has suggested that the additional power would support up to 1500 SF of administrative computing equipment. Tom has asked Facilities Management to provide an estimate for enlarging the data center space to that degree. This is one option for expanded capacity in the future.

= Evanston - modeling 2000 SF. Tom Board described further analysis of the Evanston data center. The current data center does not use the entire raised floor available from the prior tenant. Expanding the footprint of the Evanston data center would require a new utility feed, new power plant and distribution wiring, and new cooling systems. All of these requirements are being investigated to understand the cost of this option for expanding capacity in the future. The current cooling update project is engineered to accommodate additional requirements of this sort.

= Off-campus. Tom reported that conversations continue with potential commercial space providers. Leasing of commercial space remains an option for future expanded capacity.

3. Subcommittee reports

= Research committee. Rex Chisholm and Vicky Kalogera reported that the subcommittee is completing the design of a survey to all faculty on their current and anticipated research computing needs. This survey is expected to be distributed within a few weeks. In parallel, the Purchasing Services unit has agreed to provide the subcommittee will records on all relevant purchases of computers or external computing services for the past five years. The combination of these two sources will help the subcommittee create a revised "demand curve" for research computing. Jim Hurley asked that the result be vetted with the deans. Rex and Vicky agreed that this was necessary and explained how the survey and purchase records would set bounds on the possible growth models.

= Administrative committee. Ingrid Stafford reported that the subcommittee should have a first draft report available by mid-May. The subcommittee is less concerned about particular technologies than it is about capacity and
infrastructure for reliability, predicted growth in services, and support from NUIT. This extends beyond central ERP systems to school administration - the subcommittee is using McCormick and Weinberg as prototypes for this modeling. The University Library is also included because of its unique services.

4. Longer-term planning items

= Argonne Labs shared space. Patricia Todus described that the University's interest in a new Argonne building has gone unacknowledged by the developers to this date.

= Report on visit to Forest City. Patricia Todus and others reported on their trip to the Illinois Science and Technology Center in Skokie. Several spaces of various sizes and states of readiness were inspected. The site is attractive because it is very close to the University's fiber loop. The developer (Forest City) is developing pricing to lease the spaces. This resource is an option for future expanded capacity.