CASC Panel

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Future Directions for NSF ACI

• The document is very broad, balanced, and comprehensive – clearly represents the significant efforts and expertise of the authors. Great work!

• Many (most?) of the authors come from a computer science community. Thus, the call to support “production capabilities” is a strong one
  • They think the emphasis is too much on the side of experimental activities (e.g., computer science)
  • For example, “modest investments should be made to explore” next generation technologies

• I like that they have stated this clearly, even if I may not agree
ACI Planning

- The report encourages NSF to collect community requirements and publish a roadmap, to set priorities, and adopt integrated approaches.
- The report could have gone further to recommend a process for the collecting of community requirements:
  - What about something similar to a standards organization? If the Internet can do it, then why not ACI?
  - Note, this is what organizations do that are trying to create production facilities...
  - Capacity and long-term planning is needed.
ACI Division of CISE

- From our experience, the CI program targets and funding have not been much related to organizational boundaries
- It is up to people to work together
- The positioning could be relevant if the leader of the Office of ACI could make an impact on the funding trajectory and have the leverage to instill longer term stability
• It would be important to define the objectives and advantages of being at the level of an Office
• ACI should be at an institutional level if the mission is to serve the whole institution.
• But this is not clear. Many CI investments are to specific science areas.
Better assessment of impact is needed

- For example, the distribution of funding is disproportionate, and the data do not include comparisons of impact
  - E.g., Blue Waters versus smaller equipment awards
  - One may assess proportionality based on the “significance” of science advances, or the number of researchers and science areas they support

- We do not state a position about which way is “correct”, but we note that the provided data trends have not included such comparisons.
A long term strategy is needed

• The change between ACI/OCI should not be an abrupt decision and should not be dependent on the current leadership of NSF and ACI
• There should be at least one or two strategic reasons to move ACI to OCI
• There should be buy-in from the directorates
• The movement back and forth from OCI to ACI has been disruptive to the community, and affects long term planning of the science community.
Campus responsibility versus NSF role

• ACI needs to work on defining the balance between campus responsibility and the NSF role, and define how it will interact with the academic community

• The universities have a responsibility to invest in CI, but NSF has a responsibility to enable universities to respond to the CI of the IT in a changing world

• NSF needs to define its obligation to the campuses

• Our opinion is that NSF cannot support campuses for an extended period of time, but can be a stimulus to campuses

• A model of sustainability is needed that will incentivize campuses to create long term funding models for CI
Thank you.

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