

January 14, 2016

To: Campus IT Leaders

Fr: Matthew Hall, Associate Vice Chancellor for Information Technology and Chief Information Officer

Re: **Happy New Year from your AVC for IT & CIO**

Hello everyone and happy 2016!

It's already been a very busy couple of weeks as we ramp up after the holiday season. I encourage each of you to reach out and continue an on-going dialog with me regarding IT operations and security on campus. I also want to convey a few things that you might find interesting:

- 1. Campus IT Governance (ITB / ITC / Security):** I met with the EVC, Vice Chancellors, and other members of the IT Board this week. The primary topic centered around both how we consider projects and what defines "enterprise" IT. It was a vigorous and affirmative discussion. What does a new IT Council (ITC) charter look like? Who should sit on the group? How can engagement and collaboration be assured? Here is a [link](#) to the legacy charter for the ITC for your reference. Based upon our discussion, Elise Meyer is engaged in extending and modifying the charter for discussion at our February IT Board meeting. Feel free to offer any observations, concerns, or ideas to either me or Elise as she works toward a February 1<sup>st</sup> deadline for a draft of the 2016 ITC Charter. Key attributes identified by IT Board members of Enterprise (or Campus) IT include, but are not limited to,

"Majority of Campus"

"Significant Impact"

"Critical to the campus"

"High Degree of Risk"

- 2.** There is a program entitled **HPC@UC** proposed by a collection of UC research organizations spearheaded by UCSD: "Advanced cyberinfrastructure (CI), including high performance computing (HPC) systems, are critical to advancing science and discovery across a wide range of research domains." If you have feedback or questions, please feel free to review the document below, and I will aggregate the feedback. Several IT leaders in the community have already provided feedback. Details are in the below document.
- 3. UC Wide IS-3 Security Policy Revision:** I spent the majority of this week in Oakland and Berkeley discussing UC Information Security Policies, issues, education, and adoption of the NIST CSF framework in the context of our new policy models. Informal conversations with a subset of UCSB IT leaders coincidentally landed on NIST CSF. Link here for NIST: [http://nist.gov/cyberframework/csf\\_reference\\_tool.cfm](http://nist.gov/cyberframework/csf_reference_tool.cfm). If you have an interest in contributing to, reviewing, or discussing the impact or content of the new policy and where it is in the process, contact Sam Horowitz.

- 4. Campus Architecture:** We have identified several very gracious members of our community to lead architecture activities in the domains of Identity and Access Management (Jim Woods and Shea Levan), Electronic Messaging and Calendaring (Richard Kip), Converged Network (Doug Drury), and Business Systems Architecture (Bruce Miller). Other domains will emerge over time: Business Intelligence, Application Development, and Cloud will certainly be areas of critical interest. The scope of the activities for the initial phase is to describe the present state of affairs in each architecture domain. Subsequent steps include defining the target state and building the gap plan to bridge where we are with where we want to go. If you want to participate or have insights to share in any or all of these domains, let me know, and I will direct you to the appropriate community members.
  
- 5. Cyber Security Plan for UCSB:** Last fall, I convened several IT leaders into an informal security and operations group. My hope is that this group will be the genesis for a continued and more broadly inclusive dialog on the confidentiality, integrity, and availability of our environment. It will be difficult to accommodate 392 voices into this dialog, but if you have an interest in this area, please let me know, and I will take it to the group at our next meeting on January 22nd to arrive at a plan for greater inclusion in this discussion. Additionally, I reached out and was met with a positive response from Prof. Bhavnani to help identity faculty participation in this critical dialog. Much more to follow.

I look forward to hearing your feedback or meeting with you in person to discuss any of these issues or anything else you have in mind.

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## HPC@UC - Providing UC Researchers Access to SDSC's High Performance Computing Resources and Expertise

### Opportunity Announcement

The San Diego Supercomputer Center (SDSC), an Organized Research Unit at the University of California, San Diego, is making available to the UC community major high performance computing resources. This program, HPC@UC, is being offered in partnership with the UC Vice Chancellors of Research, and campus CIOs. Awards under this program are intended to seed promising computational research at UC and help researchers expand their overall research program.

Advanced cyberinfrastructure (CI), including high performance computing (HPC) systems, are critical to advancing science and discovery across a wide range of research domains. SDSC operates some of the most advanced CI the nation, including a petascale computing system for conducting complex numerical simulations, and high performance storage systems for moving, analyzing, and storing massive amounts of data from simulation and experiment. SDSC's HPC applications specialists, data scientists, and systems administrators provide the support and expertise required to make maximum use of these resources. Access to the resources is ubiquitous over high-speed networks between the campuses, with specialized hardware that enable data movement at speeds in the tens of Gigabits per second.

### Resources Available

Resource offered through this program include the following:

- *Comet*: A ~2 PFlop/s systems featuring 1,944 nodes, each with two 12-core Intel Haswell processors, 128 GB memory and 320 GB of flash storage; 36 GPU nodes each with two NVIDIA K80 GPGPUs; and 4 large memory nodes, each with 4 Intel Haswell processors, and 1.5 TB of memory;
- *Gordon*: A ~340 Tflop/s system featuring 1,024 two-socket nodes with Intel Sandy Bridge processors and 64 GB memory/node; and 300 TB of high performance flash memory; and,
- *Data Resources*: Over 7 PB of high-speed storage made available via Lustre parallel file systems, as either short term *Performance Storage* used for temporary files, or long term, non-purged *Project Storage* that persists for the life of the project. A Durable Storage resource provides a second copy of all data in *Project Storage* file system.
- Large installed base of applications for HPC and big data analytics.

Additional details on these resources is available here:

[http://www.sdsc.edu/services/hpc/hpc\\_systems.html](http://www.sdsc.edu/services/hpc/hpc_systems.html)

## Eligibility

- A PI may request up to 1M core-hours of computing, associated data storage, and access to SDSC expertise to assist their research team. Awards are active for one year.
- Applicants must not have an active award and/or pending allocation request in the NSF's Extreme Science and Engineering Discovery (XSEDE) program.
- The expectation is that these awards will lead to larger, formal allocation requests on national HPC systems that are available through XSEDE program. SDSC staff will assist in developing these allocation applications.

## Application Process

1. Prepare a single Word or PDF document, no more than 3 pages containing the following information:
  - PI affiliation, contact information, and qualifications to carry out the work.
  - Description of the underlying research problem and how this resource will help advance it.
  - Resources requested, specifically: number of core-hours; specialized nodes, such as GPU or large memory, if applicable; amount of storage; and any special assistance you'll need from SDSC staff to become productive in using the resource and achieving your research goals.
  - Any computational work that has been performed which supports you are prepared to make efficient use the requested resource.
  - A brief description of the application code(s). I.e. does it exist already, or will it be developed; is it a parallel code being used on a department or campus cluster already etc.
  - Plans for using the results of this work to apply for future computational resources, or other sponsored research proposals.
  - If you have an existing application and performance data, provide details on the number and size of jobs you expect to run on SDSC resources.
2. Send your application to: [e-mail address will be available when program details have been finalized].
3. Applications are reviewed on a continual basis.
4. Reviewed within 2 weeks of submission. Decision shared with PI (and XSEDE Campus Champion for campuses that have one.)

For additional information on this opportunity, please visit [URL will be available when program details have been finalized].

## REVIEW PROCESS (INTERNAL USE)

1. Program can be promoted several ways: Research Grants Program Office (<http://www.ucop.edu/research-grants-program>); through campus VCR's and CIOs; and UC and SDSC's communications channels.
2. Review process
  - Requests come to directly SDSC via [email address will be available when program details have been finalized].
  - SDSC verifies that there is no active XSEDE allocation, and no request pending review in the XRAC process.
  - Proposal review is done by SDSC. A small review team will do this to ensure the resource and support services are available and appropriate.
  - Review decision is shared with PI and Campus Champion within 2 weeks of receipt of the applications (business days)
  - SDSC or Campus Champion contacts PI and begins account setup process.
  - Campus Champion is a local resource to the PI.
  - User support requests go through XSEDE.
  - Interaction with SDSC staff will be determined by the specifics of the project.
  - Being mindful of when the allocation ends and the window for XSEDE allocations requests open, the Campus Champion should reach out to the PI and begin the dialogue on writing the allocation request.

**Please address feedback on this proposed program and review process to Mike Norman ([mlnorman@sdsc.edu](mailto:mlnorman@sdsc.edu)), and Shawn Strande ([strande@sdsc.edu](mailto:strande@sdsc.edu))**