COLUMBIA | RESEARCH
Shared Research Computing
Policy Advisory Committee

SRCPAC Minutes - Spring 2022
Date: Wednesday, April 20, 2022
Time: 2:00- 2:37pm
Meeting called by: Chris Marianetti, Chair of SRCPAC

MEETING MINUTES

Welcome & Introductions - Chris Marianetti, Chair of SRCPAC

SRCPAC Chair, Chris Marianetti, called the meeting to order and outlined the agenda.

Professor Marianetti asked the Chair of the HPC Operating Committee, Kyle Mandli, to summarize the committee's activities.

High-Performance Computing Update - Kyle Mandli, Chair of the HPC Operating Committee; Cesar Arias, Manager of High-Performance Computing, CUIT

Professor Mandli spoke briefly and asked Cesar Arias, Manager of High-Performance Computing, to report on the current status of the HPC clusters and upcoming purchase cycle for both the standard shared HPC and a new GPU shared cluster.

NIH G20 Final Site Visit

Cesar began by notifying the committee that the NIH has reached out to schedule a Final Site Visit in May 2022 to review the NIH G20 grant made ten years ago that supported the upgrade of Columbia's administrative data center to support Shared Research Computing. Cesar thanked the researchers for updating any papers that cited this resource.

Status of Current Clusters

Cesar then reviewed the status of current clusters as further described in the **attached slides.**

- The Habanero cluster will retire Phase I at the end of May 2022 with Phase 1 and Phase 2 in April 2023. Hardware for Habanero is no longer under warranty and nodes will be disposed of as they die. A portion of Habanero Phase 1 will be available for free for qualified users.

- Terremoto will retire Phase 1 in December 2023 and Phase 2 in December 2024.

- Ginsburg went live in February 2021 and expanded in March 2022. The cluster is now at 238 nodes and 7616 cores, including 33 GPU hardware accelerated systems.

Shared high performance computing in the past ten years has grown exponentially with more than 18 million jobs run, 314 million core hours of compute provided, 350 peer-reviewed publications, and users from over 70 groups and departments.

Buy-In Opportunities

Two buy-in opportunities for Spring 2022 HPC buy-in opportunity were sent out in mid-April. Researchers may purchase nodes for an expansion of the Ginsburg HPC cluster and a first-time new GPU cluster. The purchase opportunity should commence in mid-May through mid-June 2022 with a targeted go-live in late Fall 2022.

Professor Mohammed AlQuraishi was thanked for serving as the anchor tenant of the GPU and offering to share. An order has been placed to initiate the GPU cluster with an ETA of 6 months.

Cesar then passed the mike to his colleague to Axinia Radeva, Manager of CUIT Research Services, for updates on computing services.

Computing Services Update - Axinia Radeva, Manager of CUIT Research Services

Axinia Radeva touched on the following:
Research computing services include:

- Embedded research computing support for many affiliates such as CRPC, SSW< DSI, and Stats on Morningside and Medical Center campuses
- Secure data Enclave (SDE)
- Electronic research notebooks with LabArchives
- Globus
- Cloud research comp;uting consulting
- XSEDE national

Working with Google Cloud Platform (GCP) and Amazon Web Services (AWS) on a Business Associate Agreement, Columbia University is exploring GCP and AWS environments to leverage improved size and capabilities of Secure Data Enclave and working to verify the functionality of deploying SDE to the cloud. They've met with SSW on testing the architecture of the cloud.

Professor Marianetti then asked Marc Spiegelman, Chair of Foundations for Research Computing, to update SRCPAC.

Foundations for Research Computing Update - Marc Spiegelman, Chair of the FoRC Advisory Committee; Jonathan Cain, Associate University Librarian for Research and Learning

Professor Spiegelman discussed Foundations for Research Computing, starting with restating the mission statement. Professor Spiegelman then thanked Jonathan and Jeremiah for the heavy lift in running Foundations in its current environment without a main coordinator and being fully remote.

Demand continues to far exceed supply for Foundations two-day workshops. The January Spring 2022 bootcamp continued in a remote-learning format which has shown some positive outcomes but also presented challenges in providing education remotely.

The next bootcamp in Fall 2022 aims to return to in-person. Professor Spiegelman asked the committee for better recommendations of spaces to hold the bootcamp and focused in on the issues of how to scale to meet demand, who should Foundations serve, and how to articulate the different training needs.

Professor Spiegelman then asked Jonathan Cain, Associate University Librarian for Research and Learning, for additional comments. Jonathan highlighted the job he and Jeremiah have done in running Foundations while fully remote.

Other Business & Closing Remarks - Chris Marianetti, Chair of SRCPAC

Chris Marianetti opened the floor to further comments and questions.

Rob Lane asked about the logistics of getting set up with the GPU cluster. Cesar responded that the team is still working on the process. The team will start with setting up Mohammed. He prefaced that with this new cluster there will be some bumps along the way. Professor Marianetti then clarified that the GPU cluster will be run by the Governance Committee as with the rest of SRCPAC. The Committee operates all the clusters; though the GPU cluster operates with different hardware, operations and faculty-led governance will be similar.

With no further questions from the Committee, Professor Marianetti thanked everyone for their input and participation and closes the meeting.

See full list of attendees below.

Attendees:

Joyee To
Jonathan Cain
Marc Spiegelman
Axinia Radeva
Cesar Arias
Halayn Hescock
Kyle Mandli
Victoria Hamilton
Chris Marianetti
Jeremiah Trinidad-Christensen
Razvan Popescu
Abadali Sheikh
Alexander Bergier
Rob Cartolano
Lokke Highstein
Alan Crosswell
Tian Zheng
Tameek Henderson
Jessica Eaton
Kitty Kay Chan
George Garrett
Winnie OKelley
Mahdad Parsi
Zsuzsa Marka
John Hunt
Rob Lane