HPC Lunch Discussion Notes

Michael Kirby opening remarks

- Increase engagement with DSRI and HPC
    - HPC for all
    - CC* grant brief intro

Want to identify gaps

- Documentation
    - How to use HPC (not just Riviera)
    - Set up Github page with documentation
        - Start for documentation efforts
    - FAQ
- Jesse Wilson
    - Lazer and non linear optics
    - Documentation or resources for students to get them started on basics
    - Undergrads would be really productive with this kind of materials
    - How to set up Jupiter or Pytorch
    - How to reserve a node
    - Getting MatLab installed on Riviera
        - Potentially using OpenOndemand
- V. Chandra
    - Wants to see people not having to wait for years for data transfer
    - Get faculty representatives to get
    - Use this group of people who have expertise HPC to help others
        - Use the people in the room as a "club" that can help build this
        - Build visibility at admin level
- Ashok Prasad
    - HPC for professors across campus
    - Increase Riviera resources to keep up with new users
    - Documentation that can get people started
- Kelly Wrighton
    - Also continue to write the activity group needs into grants for community building efforts
    - Return to run the jobs can be slow when the jobs don't fit the optimal Riviera resources
    - Potentially add in guidelines to help smaller jobs through faster and get research done
    - Biological software interfacing with Riviera
        - Resources for this?

- o Potentially has a pipeline that others can use for their needs.
    - ▪ Sharing tools with activity group so that people can see what is out there and save time if someone has already created the resource
- o Ohio has great documentation and resources
    - ▪ It was built by the researchers in the specific areas (writing in your expertise)
- o Getting information on condo models would be useful
- Kayla Borton
  - o Space for resources
- Sangmi Pallickara
  - o Lots of data coming in and going out
  - o More memory
  - o Queuing optimization to let big jobs not hold up smaller ones
    - ▪ How to share the resource effectively
  - o Priorities to certain groups (or at least some nodes) for a specific timeframe
- Bill Carpenter
  - o Unification of documentation
    - ▪ How to set up their dependencies
    - ▪ How to do heterogeneous models
    - ▪ How to play with the scheduler
    - ▪ Room for dynamic allocation
- David King
  - o Communication and documentation
    - ▪ User group listserv for announcements
    - ▪ As we build community and resources share them into the listserv
  - o Put the minutes on website and sent out to the group
  - o Ticketing system for Bill
  - o Send the easy tickets (or difficult problems) to the activity group
  - o Grad student volunteers for easy tickets?
- Ty Sherman
  - o Representing the entry level user and Vetlab
  - o Given hammer but don't know how to use it
  - o More opportunities to help people ease the steep entry curve
- Heather Pidcoke
  - o Is here to listen and help figure out how to let smart people do what they need instead of having to take time doing stuff outside their domain
  - o Communication about what is available to the university
  - o How to make it sustainable
- Dan Carver
  - o Getting access to higher RAM machines to work with

- Sudeep Pasricha
  - Capacity is biggest need
  - Alpine is oversaturated and people are waiting in line
  - Think about the next generation Alpine / planning for the future
  - Creating a system that is accessible to students for classes
  - Points students to Collab (google cloud service) web based dashboard
    - Students would have projects terminated because of free version of Collab
  - More GPU and plan bigger for where Riviera goes next
  - Potentially consider maintaining relationship with Boulder (building off what Alpine and Summit have done)

Sustainability can be benefited by DASHBOARD of what is going on and what has happened in the past

- Follow trends to know what needs will arise and when to be strategic about getting new hardware
- Copying Michigan's dashboard
- Applications dashboard potentially needed as well
- Working to 2x the system
- CSU will need to be agile with resource restraints

Major Themes

Documentation

Communication to University and about HPC

Capacity

Community of Users

Educational Materials