UC3 Virtual Community

Context

The UC3 Virtual Community is a UChicago-based virtual organization with charter and concepts following those established by the Open Science Grid. It serves as a point of coordination for accessing the high-throughput distributed computing resources of the Open Science Grid.

Charter (from front page)

- UC3 focuses on DHTC - **distributed** high throughput jobs (loosely coupled, high capacity, able to run on distributed resources) and DHTPC - **distributed** high throughput parallel computing (whole-node scheduling, i.e. multicore & hyper-threaded cores)
- UC3 participating resource owners **control their own assets and set policies accordingly** (for individual users or groups)
- UC3 has a **baseline set of services** for identity, job scheduling and data management. UC3 provides highly visible resource monitoring: there is need to see the **Cooperative** at work, and to assess its impact and benefits for **users and resource providers**. UC3's roadmap includes building interfaces and services for **private science cloud-like** infrastructures, providing a seamless experience for users of the environment.
- U3 remains **community-oriented** and focused on connecting resources and communities. UC3 connects loosely coupled, **faculty-owned** resources (such as high energy physics - ATLAS at the CERN LHC, the South Pole Telescope, and Radiological Medical Imaging) to **centrally managed** UChicago resources (eg. ITS, RCC clusters) and distributed resources such as **Open Science Grid** or **cloud resources** through the **UC3 Virtual Community**.
- UC3 is a bottoms-up, **grassroots facility & environment, driven and operated for and by UChicago faculty** from various Divisions and Institutes. UC3 users come directly through self-supporting, faculty-sponsored UC3 resource contributing communities, or through the **support services of RCC's scientific computing consulting services** which serves as the focal point for general University research computing support.
- UC3 has in its scope potentially extending UC3 environments to resources at laboratories affiliated with UChicago, for example Fermilab and Argonne, as appropriate for certain communities (eg. high energy physics, space physics, well-established communities within the CI), and in collaboration with IT and research staff of those institutions according to mutually defined goals.

Stakeholder groups

- UChicago ATLAS/LHC group
- South Pole Telescope Collaboration
- Radiation Imaging and Oncology, SIRAF (Scientific Image Reconstruction and Analysis Facility)
- RDCEP - Center for Robust Decision making on Climate and Energy Policy (http://www.rdcep.org/people/)
- UChicago Information Technology Services (ITS)
- UChicago Research Computing Center (RCC)
Operations and Roles

UC3 VO Manager

- Rob Gardner (rwg@uchicago.edu)

UC3 VO Administrator

- Lincoln Bryant (lincolnb@hep.uchicago.edu)

UC3 VO Security Contact

- Rob Gardner (rwg@uchicago.edu)

UC3 VO Support Center

- uc3-admins@lists.uchicago.edu

References

- https://twiki.grid.iu.edu/bin/view/VirtualOrganizations/WebHome
- https://www.opensciencegrid.org/bin/view/Documentation/GlossaryOfTerms#DefsVo
- https://www.opensciencegrid.org/bin/view/CampusGrids/DeployedCampusInfrastructures