



Assessing Research Cyberinfrastructure Needs at the University of Minnesota

How does a campus support research computing and its demands for large-scale computation, storage, and data transfer capacity? How might it best align infrastructure and expertise to support start-up and incubation, scale-up to full operations, and readiness for global utilization over the long term? What do existing practices at the research center and collegiate-levels offer in modeling support at the institutional level?

At the University of Minnesota, four in-depth interviews were conducted as case studies for the Research Cyberinfrastructure Alliance (RCA) sponsored by the Office of Information Technology (OIT), University Libraries, and the Office of the Vice President for Research (OVPR). Together with five collegiate units,* these partners are working to understand how researchers manage their computing needs and their digital data. Findings from these case studies and other data are being applied towards shaping a new model of providing secure, high-end, high-quality research computing systems and services at a scale that has been difficult to achieve under the current “independent operator” model.

The interviews reveal researchers eager to work with campus partners to relieve themselves of the day-to-day burden of administering data management solutions. Furthermore, researchers need access to development and engineering resources from time-to-time, but not regularly enough to justify hiring dedicated full-time staff. Core needs of data storage and expert assistance are similar enough that a common solution may be feasible, especially if it is layered in a way that encourages the development of some domain expertise and long term relationships between researchers and those supporting their work.

An internal “pay-as-you-go” funding model is widely viewed as unsuitable and poorly matched to the grant-funded nature of this work and the need for occasional “seed” support that gets work started. However, supporting central services through inclusion of such services in grant proposals is viewed as workable and is largely how funding is currently allocated for these needs.

Competition from Google and other commercial enterprises is already emerging in this realm. The need for a University solution is urgent.

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