Mission

CU Boulder Research Computing (RC) supports fair and equitable access for a diverse set of stakeholders to innovative large-scale computing and data resources emphasizing open, stable, and secure access to data while maintaining required measures of compliance for our sponsors.

Core Goals

Infrastructure

RC is committed to implementing integrated state-of-the-art compute and data technologies to promote research discovery and technological innovation for all stakeholders.

1. RC will work to acquire and provision new technologies to support innovative research discovery, focusing on workflows promoting use of Artificial Intelligence/Machine Learning or workflows that are most effective in a cloud environment, while still maintaining technologies to support traditional workflows.
2. RC will engage campus stakeholders to both determine researcher workflow needs and introduce new technology to meet those needs.

User Support

Campus stakeholders using large scale data and compute resources must have easy access to the services and infrastructure provided to decrease time to research output.

1. RC will work to enhance the use and availability of computational tools and software through acquisition, training, and communication for all researchers, with the goal of decreasing time to output.
2. RC will work to grow staff to meet demand for increased support, ensuring RC can support new and innovative technologies. Additionally, RC will strive to work with stakeholders at all levels, engaging new researchers and new disciplines to broadly support computing needs as well as provide in-depth support where needed.

Data Management and Storage

RC and/or the Center for Research Data and Digital Scholarship (CRDDS) should provide leadership in open access to CU Boulder research data, including the infrastructure and user support that enables researchers to easily comply with funder and journal requirements while meeting necessary privacy, confidentiality, and security requirements.

1. RC and/or CRDDS will support requirements from federal funding agencies to properly manage, store, and archive data throughout the entire data lifecycle, and support publishing of data with limited gatekeeping.
2. RC will provide awareness and seamless integration of storage and management services to campus researchers and ensure ease of use while enhancing storage capabilities to meet stakeholder demand.

Secure Research Data

CU Boulder researchers must be able to work with highly confidential/high impact data, in alignment with federal and sponsor compliance requirements.

1. RC and/or CRDDS play an important role in supporting the campus Research Cybersecurity Program, working with appropriate stakeholders and ensuring that CU is meeting sponsor requirements and flow downs, with a specific focus on CMMC compliance capability.
2. RIO and OIT should work with the IRB Office, OCG, and RC, along with key stakeholders, to develop integrated IRB processes and determine roles, responsibilities, and processes to create a centralized resource to support researchers effectively.

Education

The university is moving to offer a range of informal and formal educational opportunities at the undergraduate and graduate levels that make our students competitive on the job market, push the boundaries of research, and advance the university's reputation as a flexible, leading-edge educational institution that can address societal challenges. RC plays an important role in ensuring CU's educational enterprise, supporting both course-based and research-based learning.

1. RC supports campus instructors teaching courses with large-scale computational or data requirements by providing needed tools, software, and infrastructure.
2. RC and/or CRDDS will provide integrated educational opportunities through informal trainings, formal certificates, or micro-credentialing by partnering with departments, institutes, groups, or individual instructors to enhance existing opportunities being developed.

Leadership

RC serves as a local, regional, and national leader, contributing to the national conversation on directions for research computing and data best practices as well as issues related to creating equal access and diverse and inclusive research computing communities, providing our institutional partners with resources to advance their research and educational missions.

1. RC leadership engages with federal sponsors and regional and national collaborators to support the development and implementation of a national vision for research computing.
2. RC works with regional stakeholders, continuing to serve a source of information and solutions for a broad network of institutions.