



Cluster Storage System

SCIENCE DMZ

High Speed Network

The Science DMZ network enables a friction-free network for scientific data workflows. This network is connected to a 100Gbps backbone providing enough throughput for large datasets. The KU Community Cluster along with the ResFS are directly attached to this network. Utilizing the Globus software through the DTN, transfers to other sites are fast and easy.

CRC can work with your lab to connect to this network if the extra bandwidth is needed for your data workflows.

SERVICES

CRC offers several services to assist researchers with data storage, management, and hosting solutions. Utilizing the high-performance cluster options, you will be able to do your research while we manage your computing needs.

- High Performance Computing
- Research File Storage
- Software Management
- HPC Training
- XSEDE (Extreme Science and Engineering Discovery Environment)

STATISTICS

- 47 owner groups
- 22 departments and centers
- 392 compute nodes
- 9540 cores
- 348 users

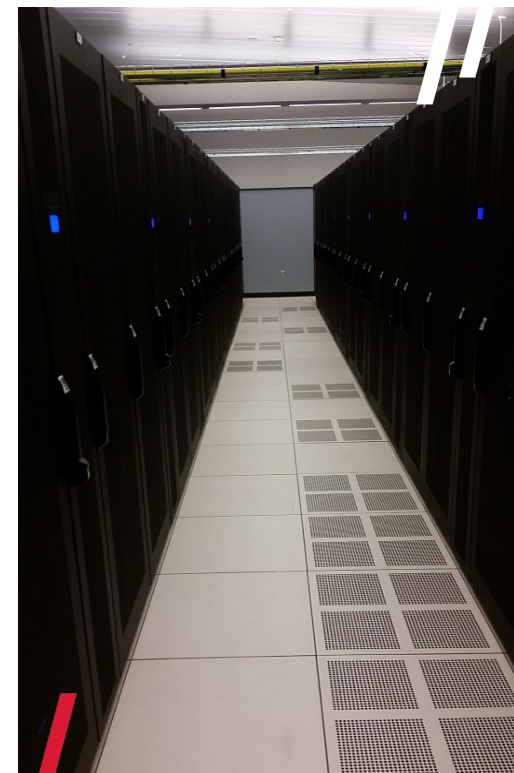
QUESTIONS?

Center for Research Computing

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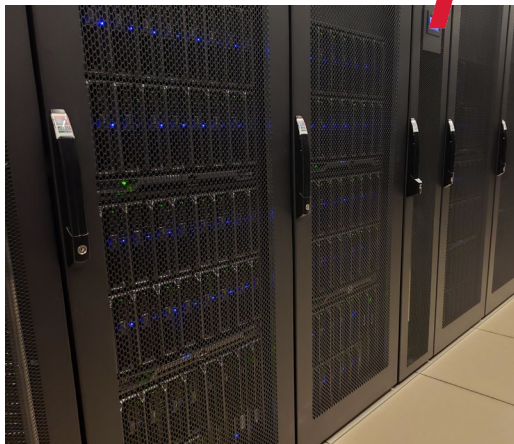
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Advanced Computing Facility

CENTER FOR RESEARCH COMPUTING

Accelerating Scientific Discoveries



Compute Nodes

The Center for Research Computing (CRC) helps to establish the overall direction of research computing services university-wide in collaboration with research centers and academic departments. It ensures that KU has the best research computing infrastructure available.

KU COMMUNITY CLUSTER

Condo Model

The KU Community Cluster utilizes the condo model to bring together hardware purchased from different researchers into a single heterogeneous cluster. This allows participating researchers to have dedicated use of their purchased nodes, or they may run larger computing jobs by sharing idle nodes owned by other researchers. The main benefit is access to a much larger cluster than would typically be available to a single research group.

Hardware/Software Management

The cluster hardware and software are administered by CRC staff. This removes the need for postdocs or graduate students from maintaining your computing system. CRC staff also assists users with any problems they may have using the cluster and helps new users by conducting training and one on one sessions.

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Cluster Storage

A high-performance parallel storage system is directly connected to each compute node.

- \$HOME – 100 GB of disk space for each user.
- \$WORK – 1TB of disk space for each owner group.
- \$SCRATCH – 75TB of temporary disk space shared by all users. 60-day limit for files.

Additional \$WORK storage may be purchased upon request.

Buy In

Bi-annual purchases will be done for fall and spring semesters dependent on funding. One-time purchases can be facilitated, but volume discounts may not be achieved, increasing the price of the hardware.

RESEARCH FILE STORAGE

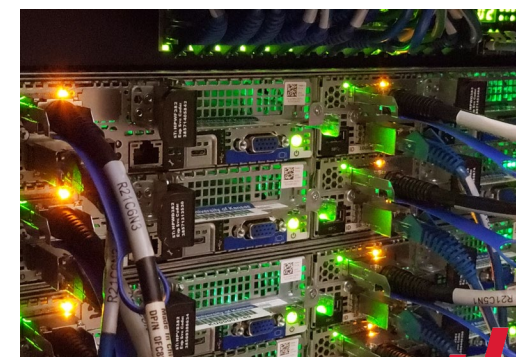
Research File Storage (ResFS) provides easily accessible file sharing services to KU research projects, research groups and service labs. Any tenure track faculty member, designated research center, department or principal investigator on a research grant can purchase ResFS storage.

Active Storage

Accessed through desktop computers, off campus, and through the Data Transfer Node (DTN) utilizing the software Globus. Active storage has geo-redundant backups.

Long-Term Archive Storage

Low cost cold storage for infrequently accessed data. The data is able to be retrieved any time. Multiple copies are made for offsite backups.



Back end connections