

# Research Storage Simplified

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**Be Boulder.** 

### Meet the User Support Team



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## Data Storage

# Core

- Personal Storage
- Includes 3 Directories
  - /home (2 GB)
  - /projects (250 GB)
  - /scratch (10 TB)

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### $\mathsf{PL}$

- PetaLibrary
- Tiered Storage
  - Active, Archive, Active+Archive, Archive+DR
- Requires Funding
- Starts at 1 TB





### Core

#### Home

- Personal data
- Config files
- OnDemand data
- Do not share!

**2 GB** 

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### **Projects**

- Code, Job scripts
- Installed software
- Shared data

250 GB

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### **Projects**

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- Installed software
- Shared data

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#### **Scratch**

- Job data (in/out)
- Shared data
- Deleted after 90 days

**10 TB** 





### More Details on Scratch

# /alpine

- Available from all nodes
- Accessible even when no jobs are running

### /local

- Specific to each compute node
  - Accessible only on that node, while a job is running on it

#### **Active**

- Performance tier
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- No file limit

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# Active + Archive

- Same features as Active
- Copy is synced to separate on campus datacenter monthly

#### **Archive + DR**

- Same features as Archive
- Copy is synced to offsite datacenter monthly

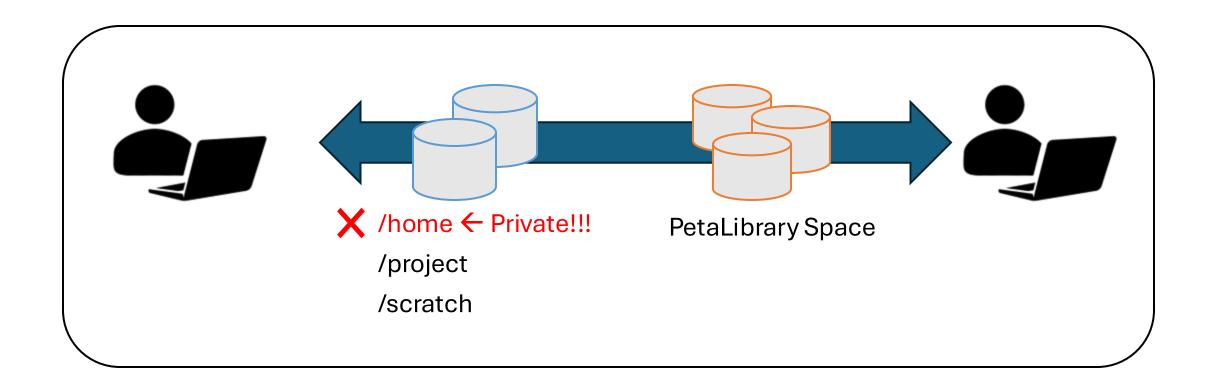


# **Speed Comparison**

- /scratch/local: Fastest
  - •/scratch/alpine: 2<sup>nd</sup> Fastest
    - PetaLibrary (all tiers): 3<sup>rd</sup> Fastest
      - •/projects: 4<sup>th</sup> Fastest
        - •/home: Slowest



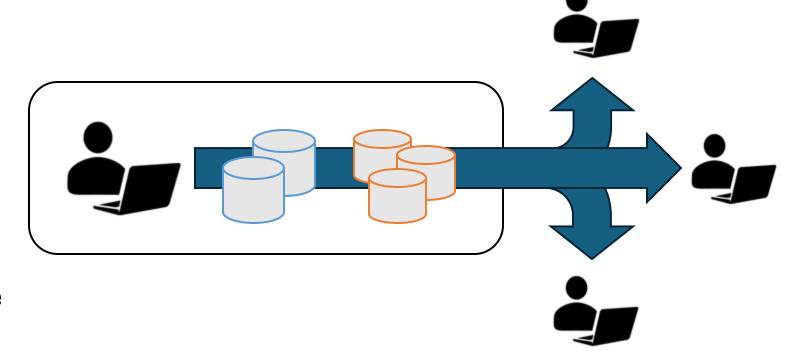
# Data Sharing: Within RC



# Data Sharing: Outside RC

#### **Large Data Transfers:**

- Globus (Recommended)
- Data Transfer Nodes (DTN)
- Terminal/Command Line:
  - o rsync
  - rclone (connect to 3<sup>rd</sup> party cloud services like OneDrive)
  - o sftp
  - o scp





### Data Transfer Nodes



- Support data transfers
- Most robust data transfer method
- Can be selected when using scp, sftp, or ssh transfers





### Acceptable data storage and use

CURC systems and services **should not be used to store** any data that is US government Classified, nor any Controlled Unclassified Information.

For users requiring storage for sensitive data types, please see the secure research computing resources:

https://www.colorado.edu/rc/secure-research-computing-resources



