

# Be Boulder.



University of Colorado **Boulder**

# Alpine

The Latest Generation of HPC at  
CU Boulder Research Computing

# HPC at RC

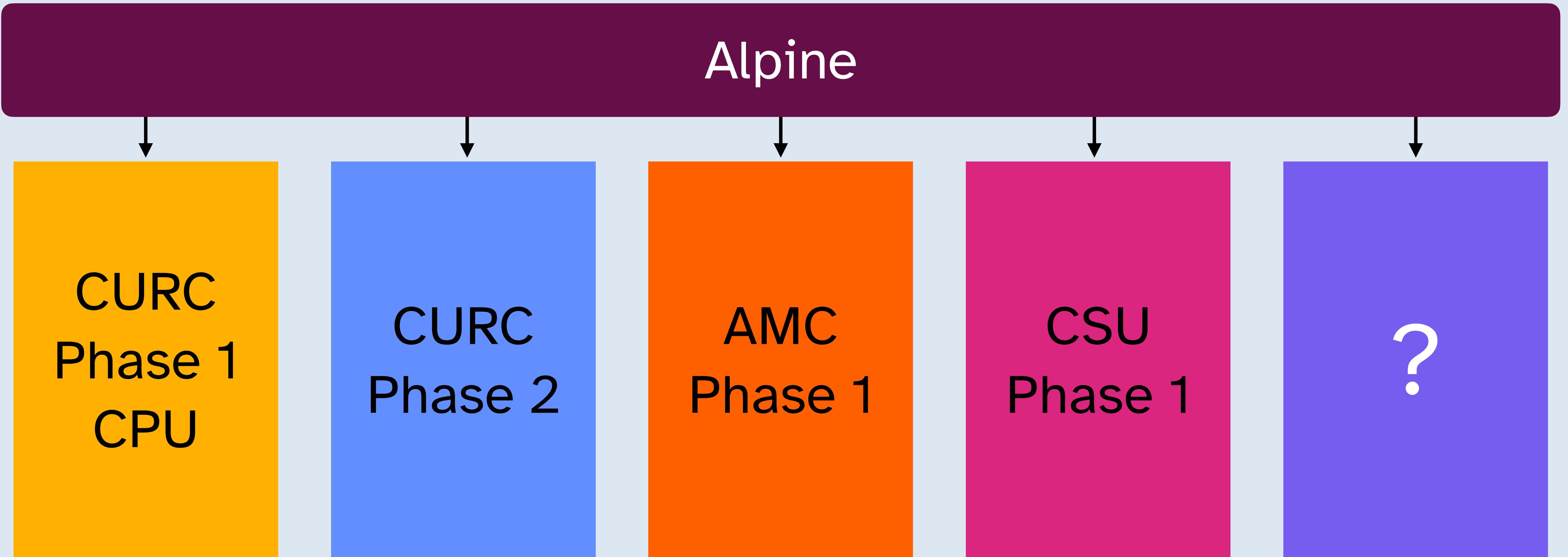
Janus

RMACC  
Summit

Alpine\*

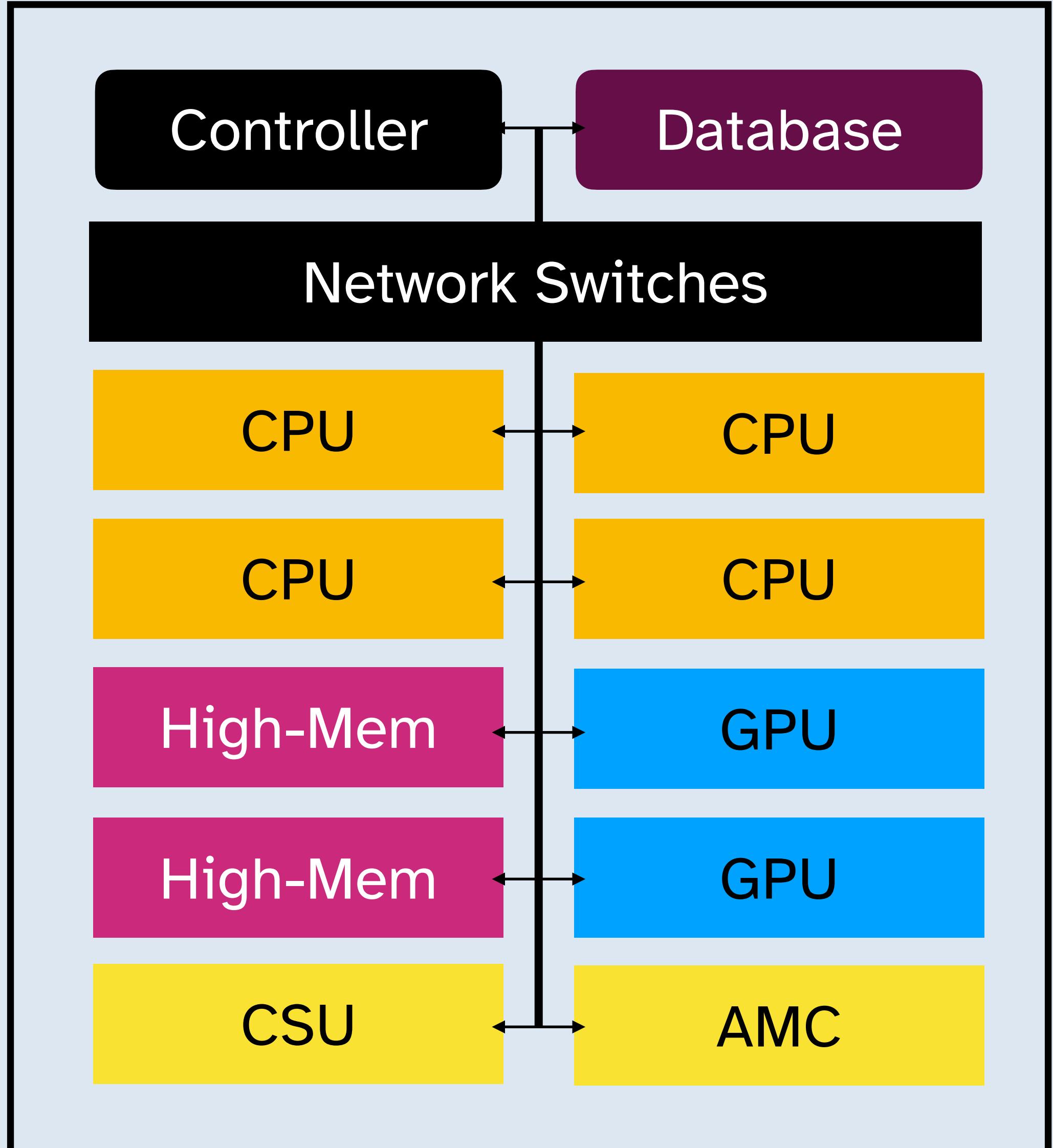
\*Alpine is jointly funded by the University of Colorado Boulder, University of Colorado Anschutz, Colorado State University, and National Science Foundation award 2201538

# Modular Architecture



# Hardware (Fall 2022)

- **16512** cores on **268** nodes
- AMD **Milan** CPU's
- **60** GPU's
- **14** high-mem (1TB RAM) nodes
- **1.9PB** scratch storage
- **25Gb** Ethernet to all nodes
- HDR-100 **Infiniband** within pods



# Software

- Common HPC software - Slurm, GCC, CUDA, MPI, modules
- GPU software and libraries for NVIDIA and AMD GPU nodes
- AMD-developed compilers and optimization libraries (AOCC)
- Container-based software repository
- Anaconda modules
- Open OnDemand

# Timeline

## Complete

- 2021: design, planning, and initial purchases
- January 2022: rolled out to early adopters at CU
- May 2022: launched for the full CU community

## Next Steps

- Fall 2022: all currently on-site equipment will be in production
- **2023: cycles will become available to RMACC**

# Welcome to Alpine