

MPI/PGAS Applications

Papyrus

C++ Template Containers

map

vector

matrix

Key-Value Store

key

value

key

value

key

value

key

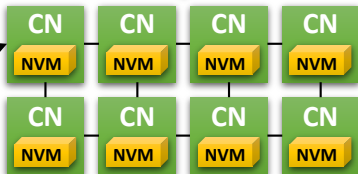
value

Virtual File System

Aggregate NVM Storage Image

Performance portable

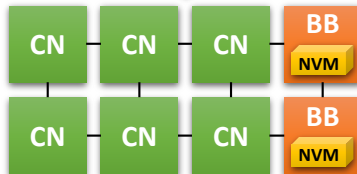
Compute Node



Node-Local NVM Architecture

(ALCF's Theta, LLNL's Sierra,
OLCF's Summit, TACC's Stampede2)

Burst Buffer Node



Dedicated NVM Architecture

(NERSC's Cori, LANL/Sandia's Trinity)