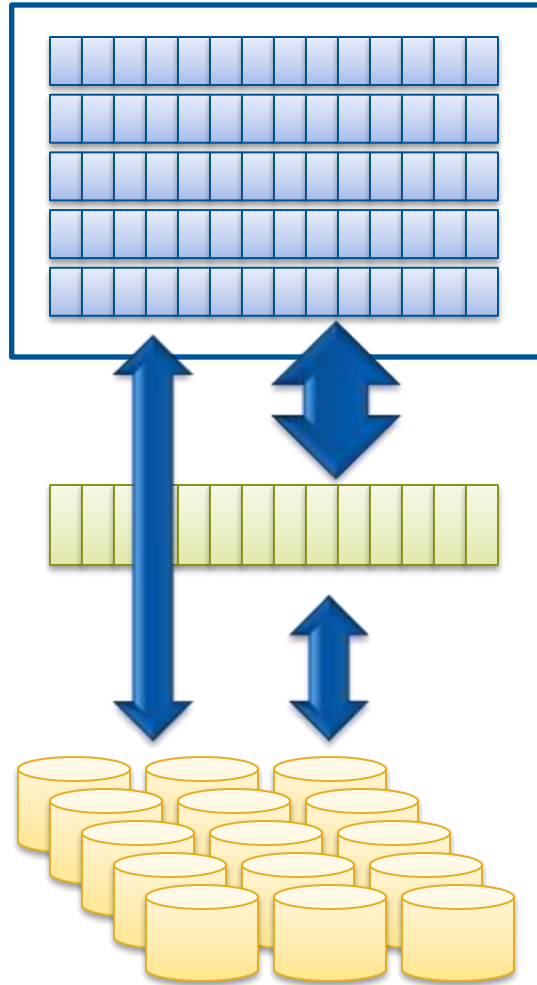


Cray View on Disruptive Technologies

Barry Bolding
VP Marketing and
Business Development



Technologies in Adaptive IO for Applications

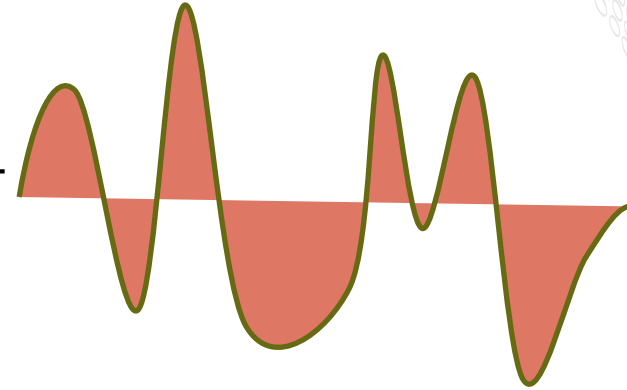


Compute Infrastructure

NVRAM/SSD Infrastructure

Parallel File System

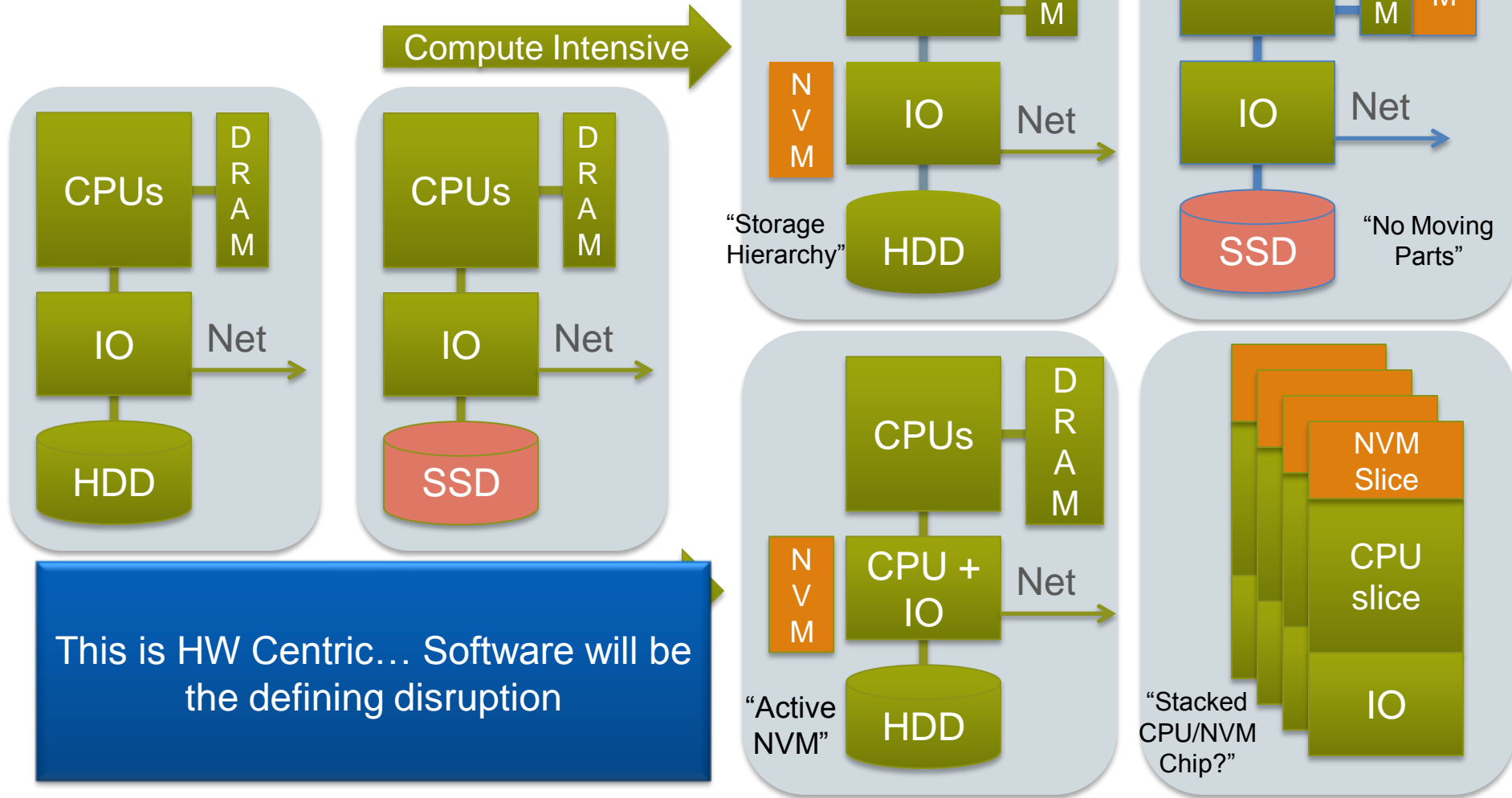
IO Bandwidth Required



>2x the bandwidth of the PFS
0.02-0.1x the storage capacity of the parallel file system

Software controllers
De-clustered Raid
Energy efficient drives
Practical Performance Limits
30-100 MB/sec/drive
15K drives in a file system

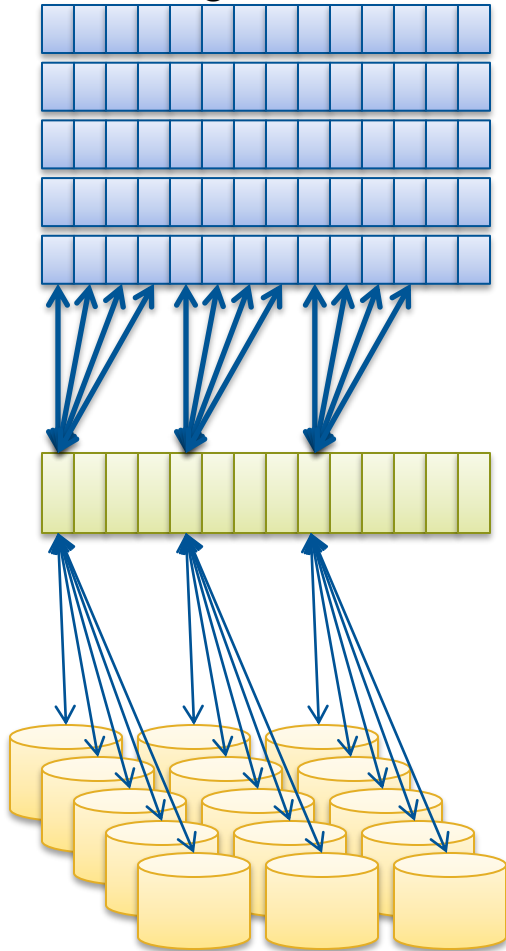
IO Architectural Designs Mapped to Application Need



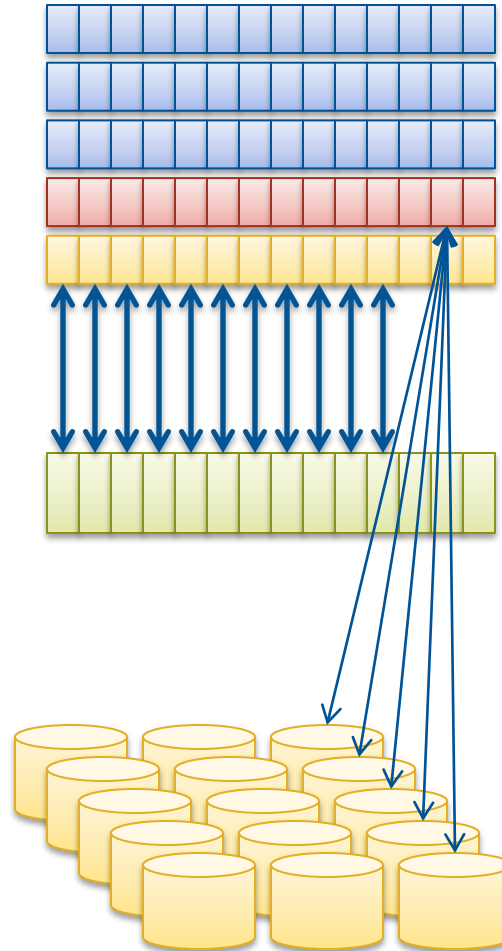
COMPUTE | STORE | ANALYZE

Applications Use Cases

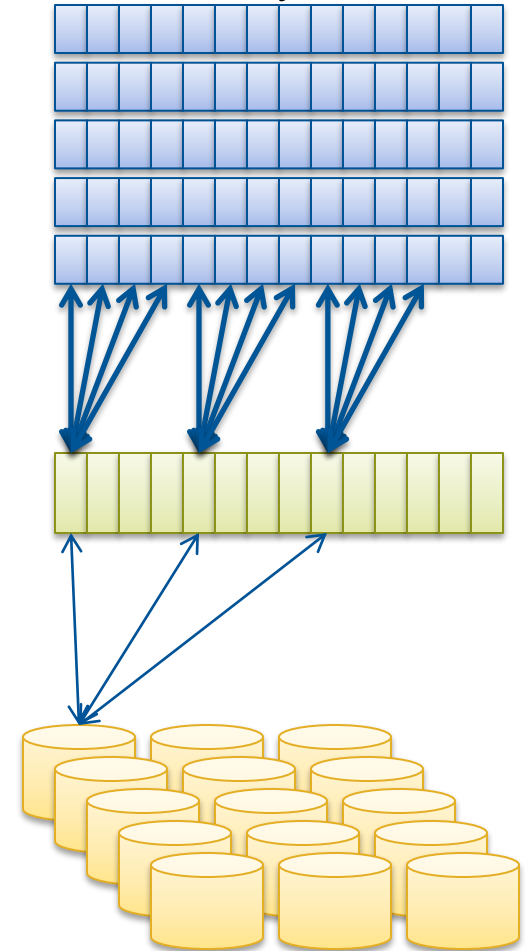
Checkpoint/Restart
Prestage and Drain



File per process
& PFS mode



Data Cache
Read Only Files



COMPUTE | STORE | ANALYZE