

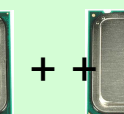
## Compute Intensive Arch

## Data Intensive Arch

Compute



5TF/socket  
1-2 sockets



5TF/sock  
8+ sockets

1TB/s

On-Package  
DRAM



64-128GB  
HMC or Stack



1-4 TB Aggregate  
Chained-HMC

200TB/s

Capacity Memory



.5-1TB  
CDIMM (opt.)



5-10TB Memory  
Class NVRAM

100TB/s

On-node-Storage



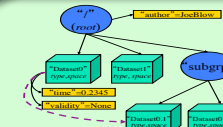
10-100TB SSD  
Cache or local FS

50GB/s/node  
10TB/s/rack

In-Rack Storage



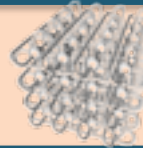
Organized for  
Burst Buffer



1-10PB Dist.Obj. DB  
(e.g whamcloud)

50GB/s inject  
10TB/s bisect

Interconnect



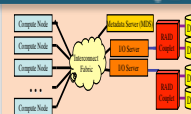
Spatially-oriented  
e.g. 3D-5D Torus



All-to-All oriented  
e.g. Dragonfly or 3T  
GAS-support in network

50GB/s inject  
0.5TB/s aggregate

Global Shared  
Disk



~1% nodes for  
Storage Gateways



~10-20% nodes for  
Storage Gateways  
Parallel MDS

4GB/s per node

Off-System  
Network

~1% nodes for IP Gateways

40GBe Ethernet  
Direct to each node