# () OpenIO

Object Storage for BigData & HPC

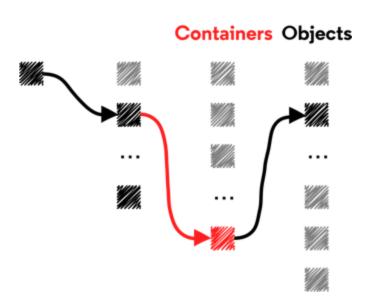
### OpenIO Object Storage

#### We think different

# Directory with indirections

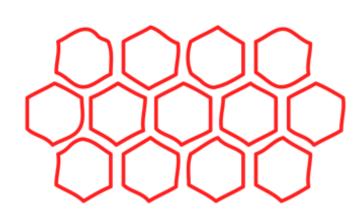
Track containers and not objects

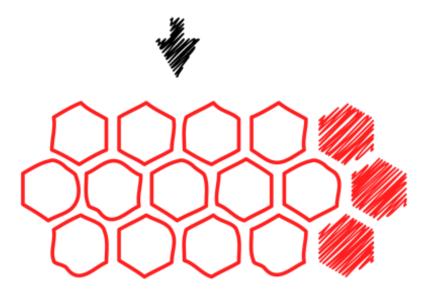




# ConsciousGrid technology

Real time LB for optimal data placement.
Never rebalance





#### **Open Source**

Avoid vendor lock-in and Improve freedom of choice.

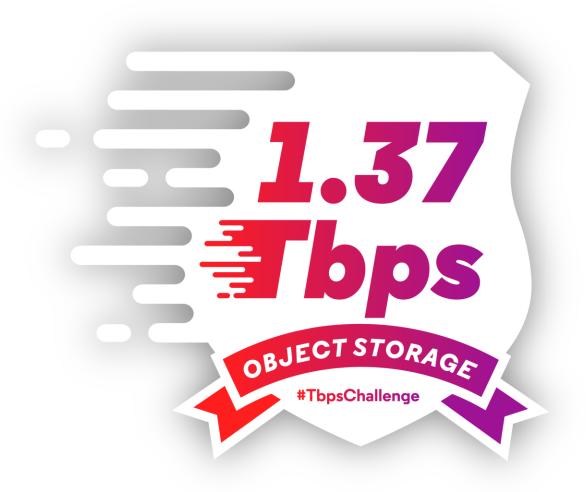
Keep control of your data

#### Flexibility!

Heterogeneous platform
Multi-tiers

#### **Data Access**

Amazon S3
OpenStack Swift
Filesystem connector
(FUSE-based)



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# Storage Landscape

Object Storage is the Sweet Spot

Tape	Object Storage	NAS	SAN	Parallel FS	Burst Buffers	HOT
Immutable Data Long-Term Huge Latency Poor Parallelism \$	Immutable Data Long-Term Medium Latency High Parallelism 100% Active \$		Mutable Data Low Latency High Throughput High Concurrency \$\$\$			

OpenIO

## Working with HDF Kita

Because budgets are finite!

#### The HDF5 community has the same TCO problem

How do you manage the "chasm of data immutability" to let HDF5 benefit from Object Storage?

So HDF Kita was born to map HDF5 files to Objects

- 1. Start prototyping on a Public Cloud
- 2. Use the same code on premises

We made the stack efficient with a tight integration...

OpenIO

## Working with HDF Kita

Tight Integration

Both stacks merged

Same deployment tools

Same scalability patterns, redundancies removed

Special attention to the efficiency of network aspects

Kita+OpenIO is the most direct way to a

TCO-efficient HDF5 usage at scale.

5