

# OpenSDS

An Industry Wide Collaboration For SDS Management

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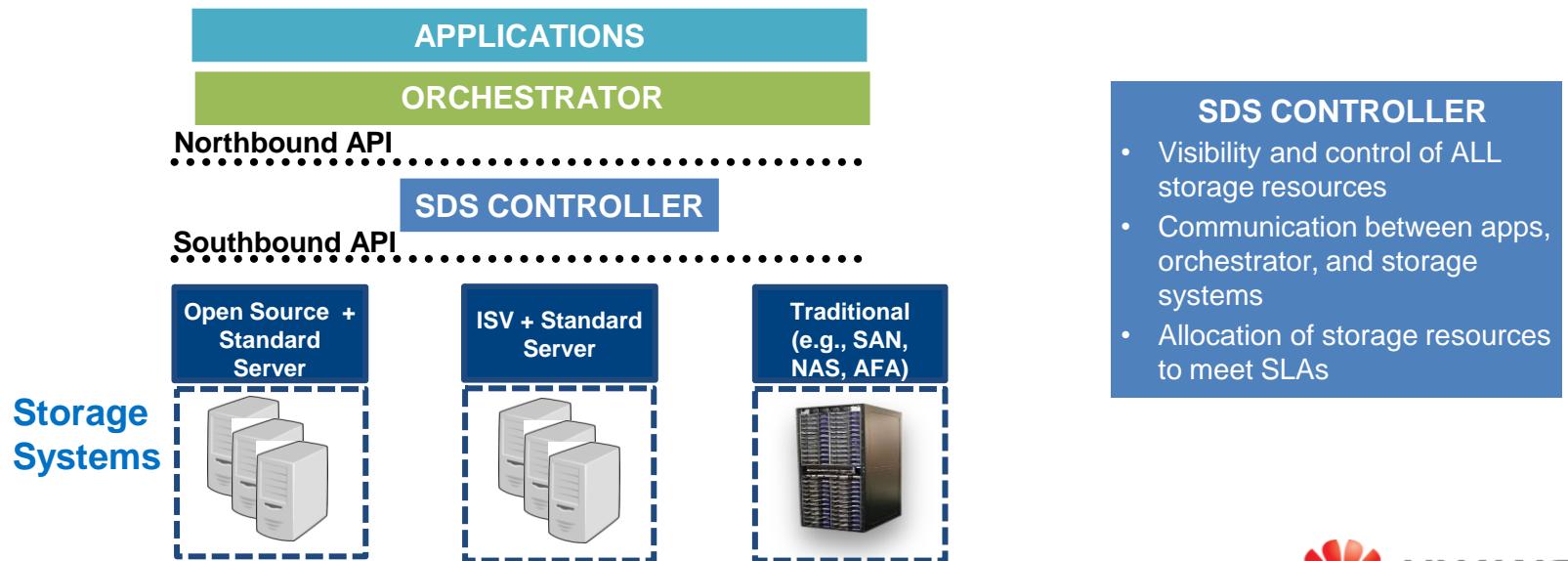


# **Part I: A Path To Open SDS**

# SDS

**Software Defined Storage (SDS) brings “cloud” benefits to storage, including auto-provisioning, self service, and management through a single pane of glass**

*A key enabler of the new SDS architecture is an **SDS controller** to simplify and unify management*

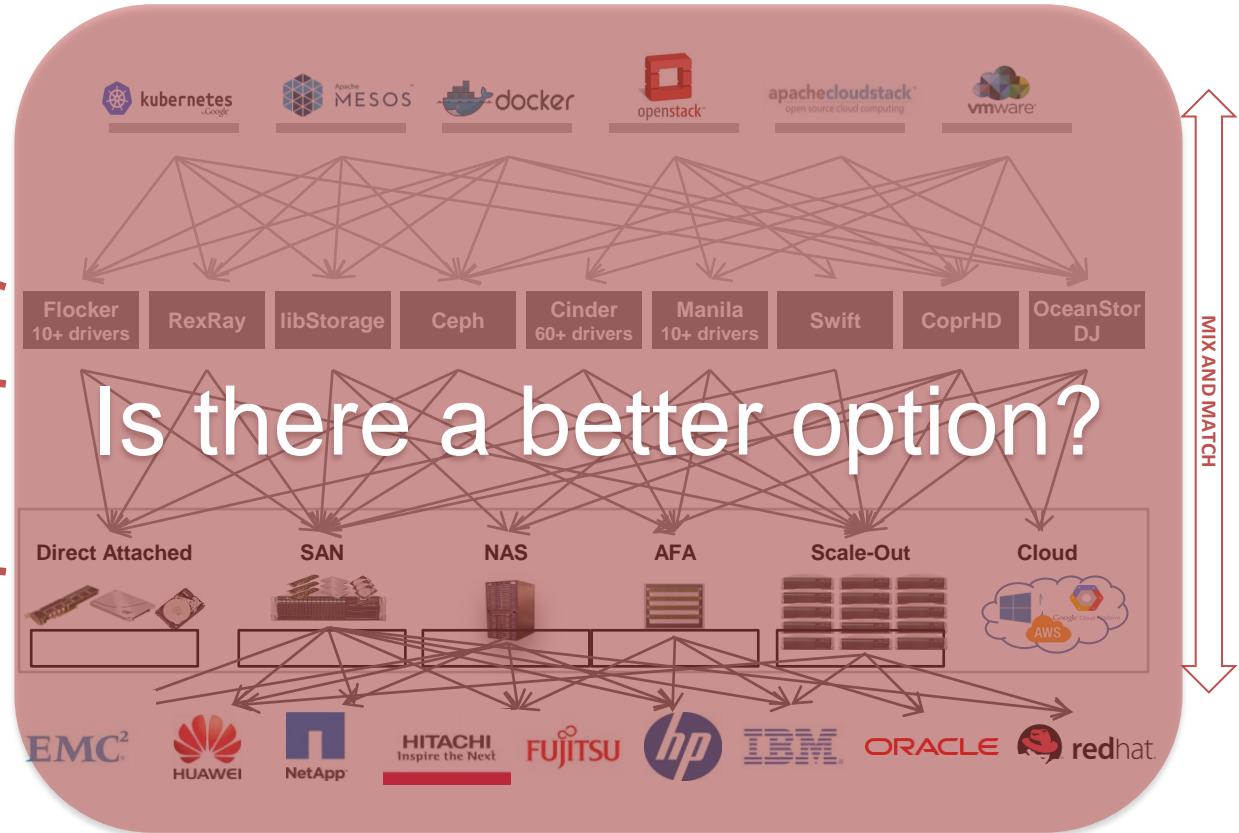


# State Of Storage Management

MULTIPLE CONTROLLERS FOR EACH FRAMEWORK

ONE DRIVER FOR EACH STORAGE PRODUCT

MULTIPLE DRIVERS FOR EACH STORAGE



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# An Open SDS Future

OPEN SDS CONTROLLER

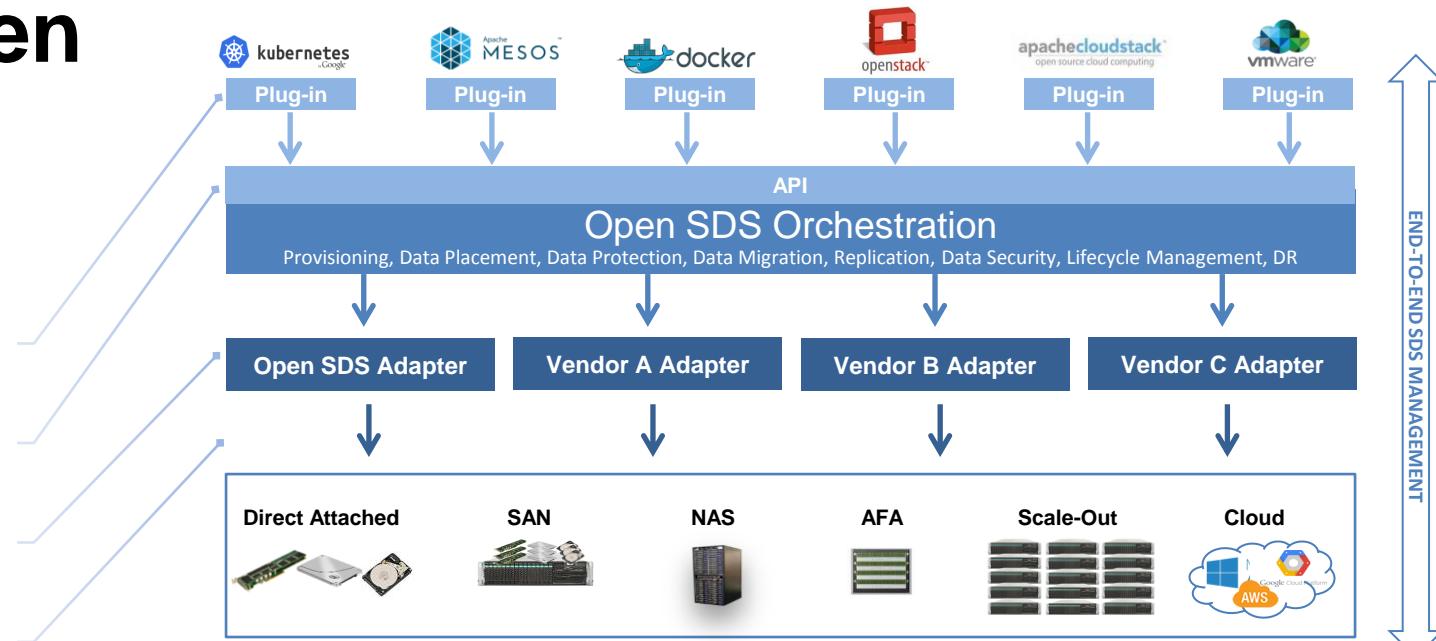
ONE PLUG-IN FOR EACH FRAMEWORK

OPEN SDS API

OPEN AND VENDOR ADAPTERS THAT INTEROPERA

COMMON MANAGEMENT API

Discovery  
Configuration  
Monitoring



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# Value Propositions

**Solve** real-world storage management problems for our collective customers

**Reuse** open-source storage building blocks, and driver investments (eg. Cinder and Manila)

**Integrate** seamlessly with Kubernetes, Docker, Mesos, OpenStack and others

**Collaborate** in an open source community with momentum and broad developer support

# Mission

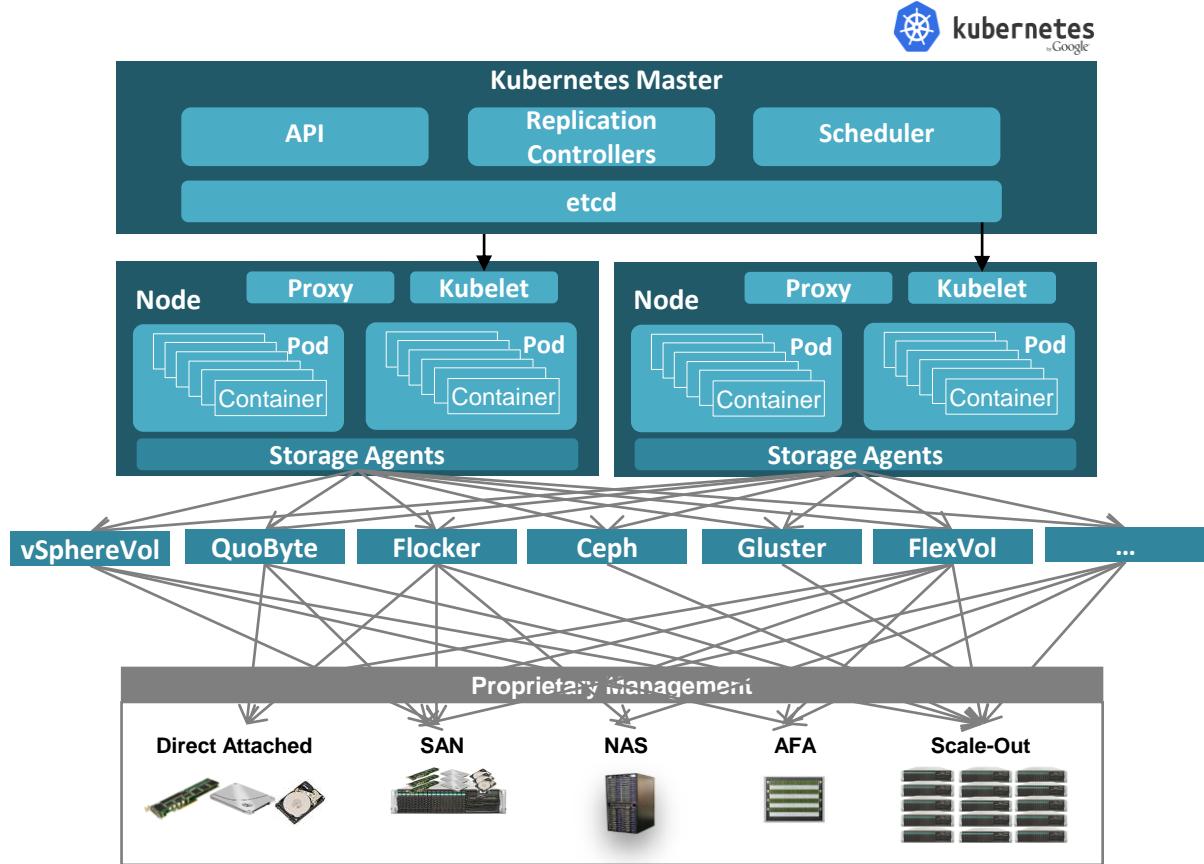
Develop an open SDS controller that enables  
storage management across cloud, containerized,  
virtualized and other environments

Facilitate collaboration among storage vendors,  
end users, and standards organizations to solve  
real-world storage management problems

## **Part II: Solutions and Project Proposal**

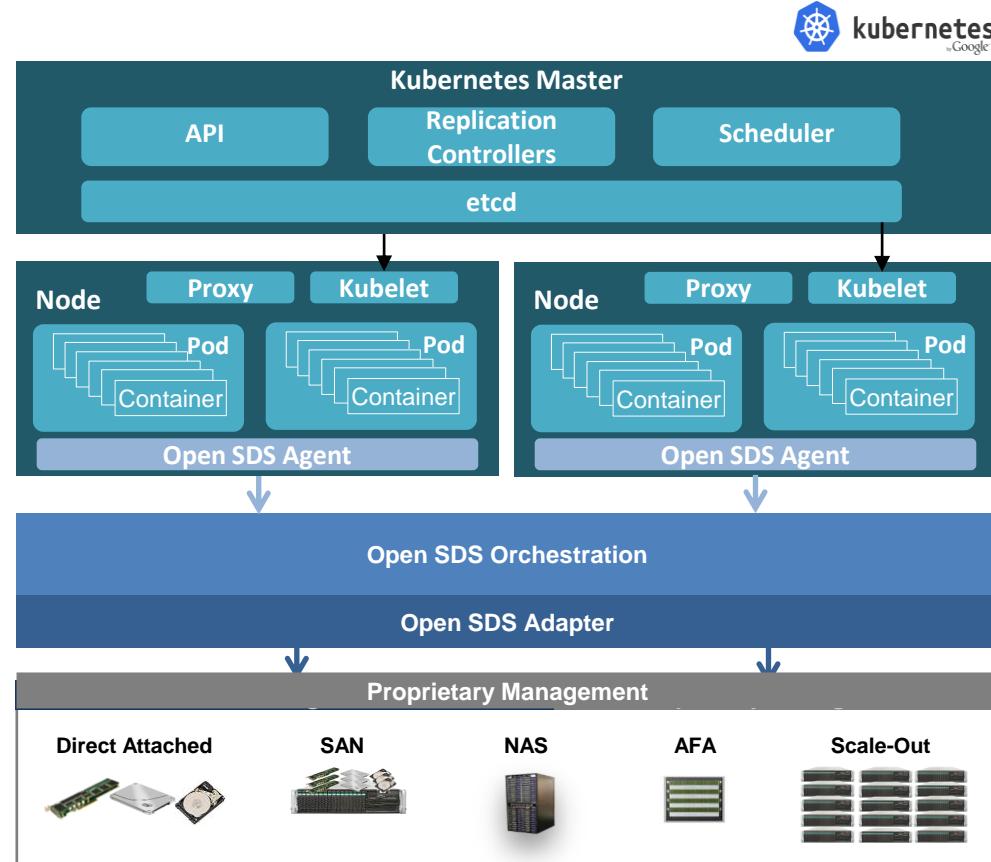
# Storage Management For Kubernetes

- ✓ CONTAINER ORCHESTRATION THAT IS HIGHLY AUTOMATED
- ✓ GROWING COMMUNITY AND ECOSYSTEM
- ❖ MULTIPLE CONTROLLERS SOLVING THE SAME PROBLEMS OF FAILOVER, MIGRATION, etc.
- ❖ EACH CONTROLLER SUPPORTS ONLY A LIMITED SET OF STORAGE



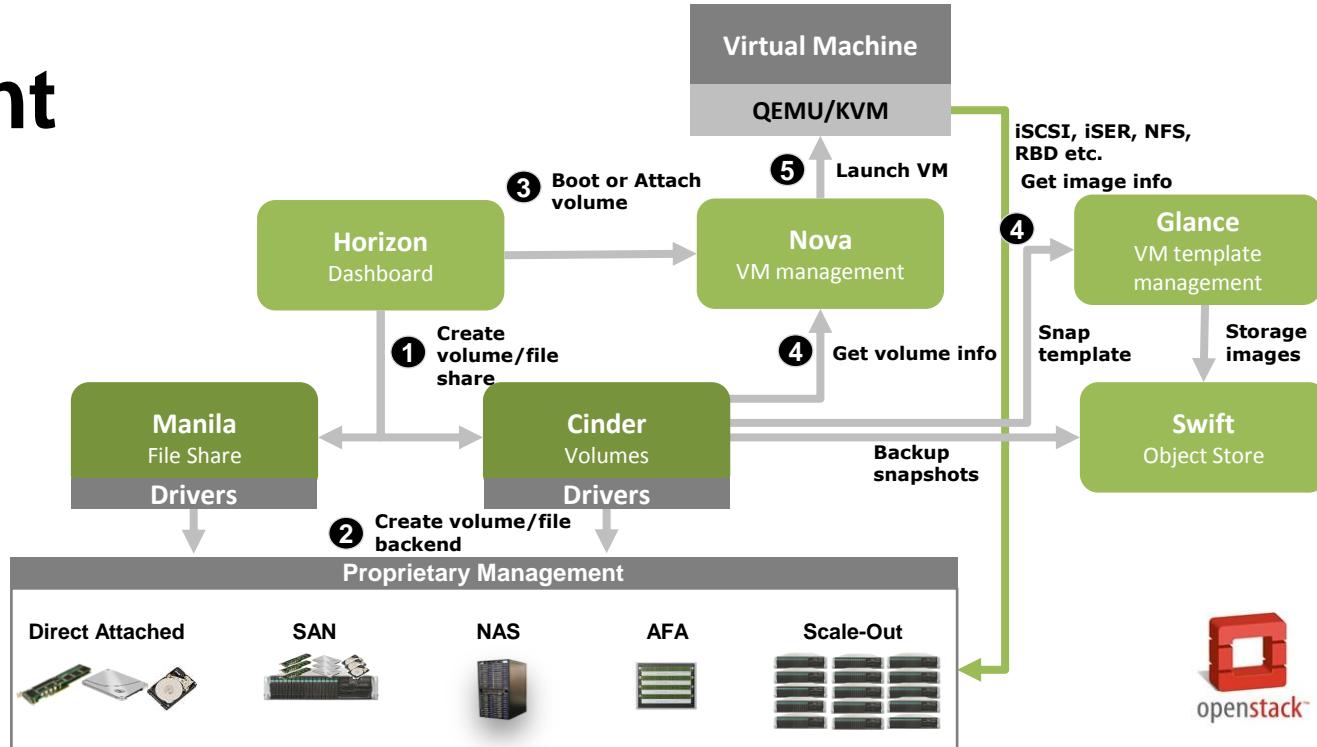
# Open SDS Management For Kubernetes

- ✓ CONTAINER ORCHESTRATION THAT IS HIGHLY AUTOMATED
- ✓ GROWING COMMUNITY AND ECOSYSTEM
- ✓ ONE STORAGE AGENT SUPPORTS ANY TYPE OF STORAGE
- ✓ SINGLE SOLUTION FOR END-TO-END STORAGE MANAGEMENT



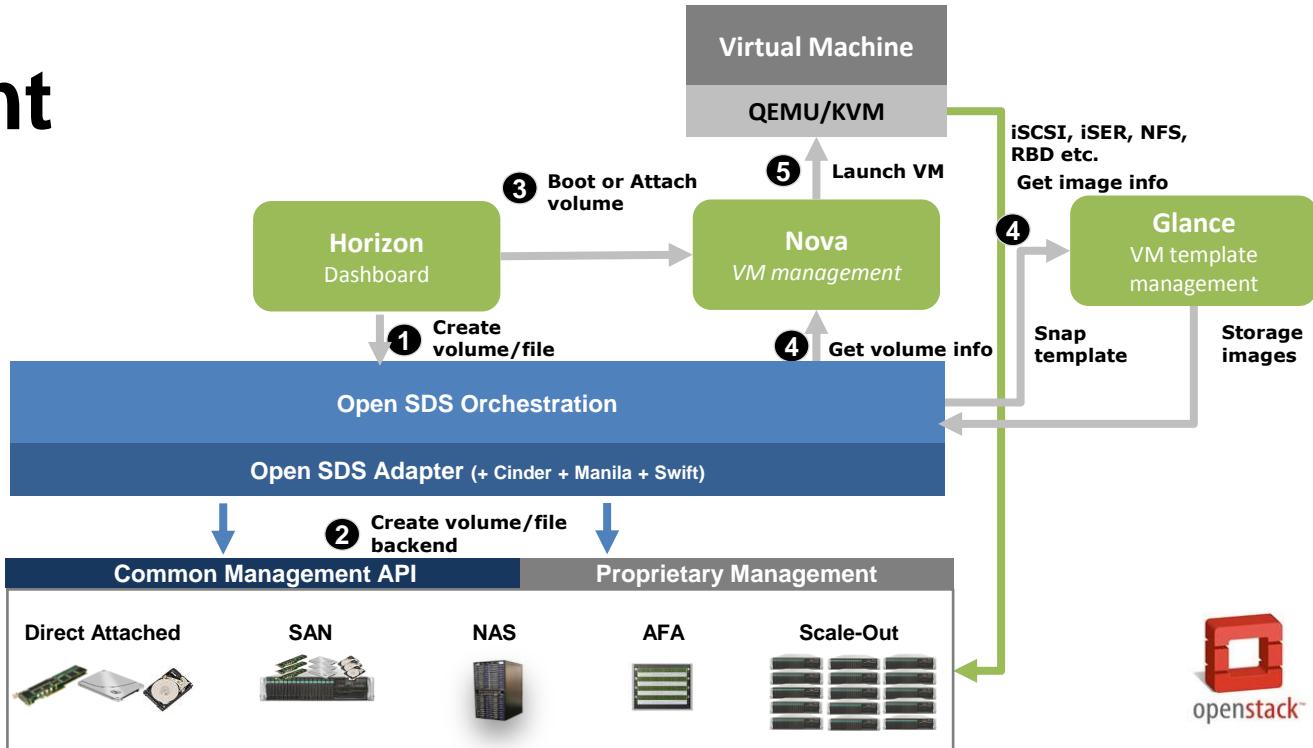
# Storage Management For OpenStack

- ✓ MOST POPULAR CLOUD OS WITH LARGE COMMUNITY AND ECOSYSTEM
- ✓ BROAD STORAGE SUPPORT WITH CINDER AND MANILA
- ❖ LACKS DISCOVERY, CONFIGURATION AND MONITORING OF STORAGE



# Open SDS Management For OpenStack

- ✓ LARGE COMMUNITY AND ECOSYSTEM
- ✓ BROAD STORAGE SUPPORT
- ✓ LEVERAGE CINDER AND MANILA DRIVER INVESTMENTS
- ✓ STANDARDIZED DISCOVERY, CONFIGURATION AND MONITORING



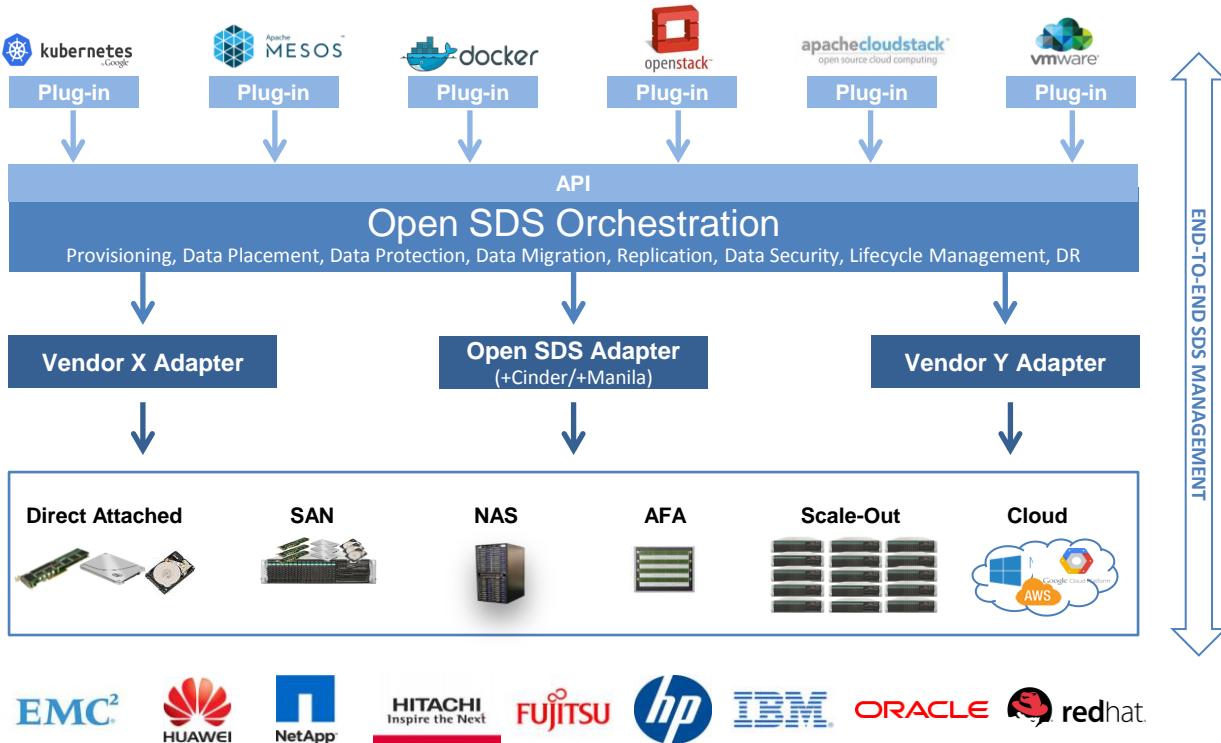
# The OpenSDS Project

OPEN SDS CONTROLLER

SEAMLESS PLUG-IN FOR ANY FRAMEWORK

SIMPLIFY END-TO-END STORAGE MANAGEMENT WITH A SINGLE SOLUTION

SUPPORT FOR BROAD SET OF STORAGE SYSTEMS AND CLOUD STORAGE WITH STANDARD API



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# Model

- ✓ Technical project with light governance model
- ✓ TSC for technical oversight of the project
- ✓ GitHub source code, Gerrit code reviews, Launchpad blueprints
- ✓ Regular IRC meetings, and meetups

# Pillars

## Open

License  
Software  
API  
Design And Specs  
Standards  
Source

## Users

Service Providers  
Enterprise  
Developers

## Communities

OpenSDS  
CNCF  
OpenStack  
Docker  
Mesos  
CloudStack  
OCI  
SNIA  
...

## Vendors

Storage  
Networking  
OS  
Cloud  
Database  
Big Data  
Tools  
...

UX  
Release Architecture  
Testing Code Review  
Specifications Documentation  
The OpenSDS Project



# Join The Project

Discussions in progress with  
vendors, end customers and open  
source communities

Tune in for an announcement this  
year!

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