

# OpenSDS

An Industry Wide Collaboration For SDS Management

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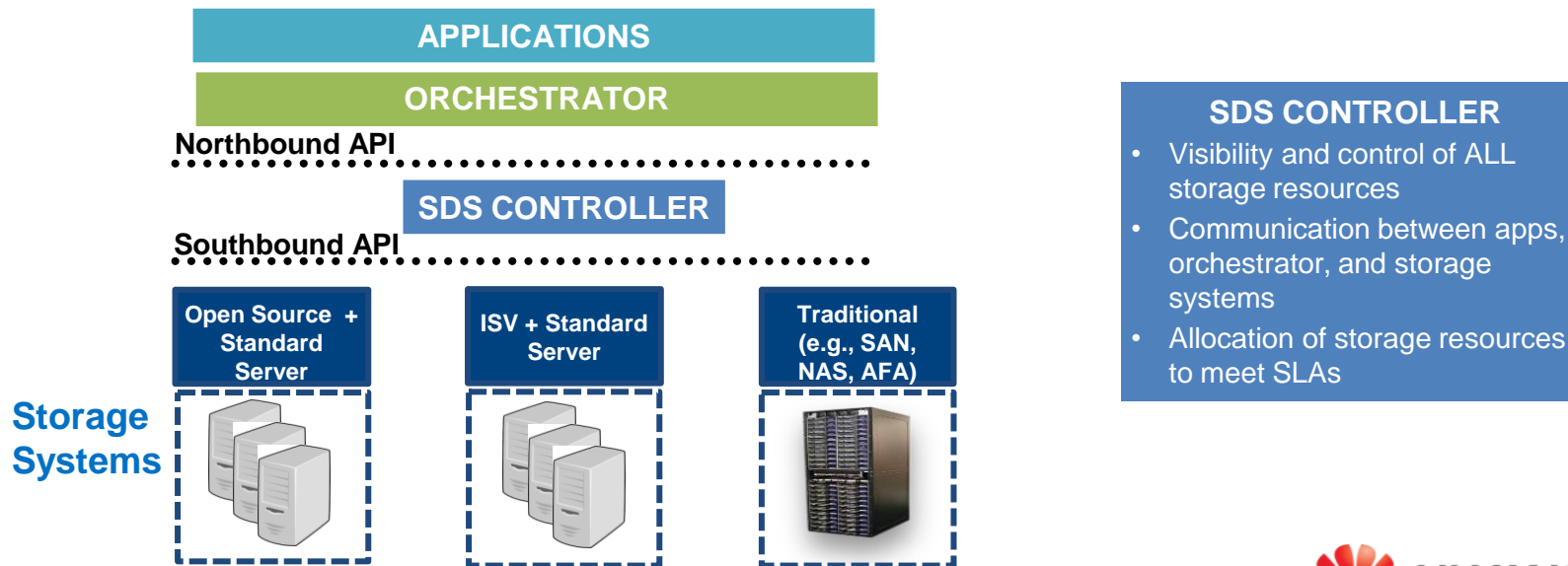


# **Part I: A Path To Open SDS**

# 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*

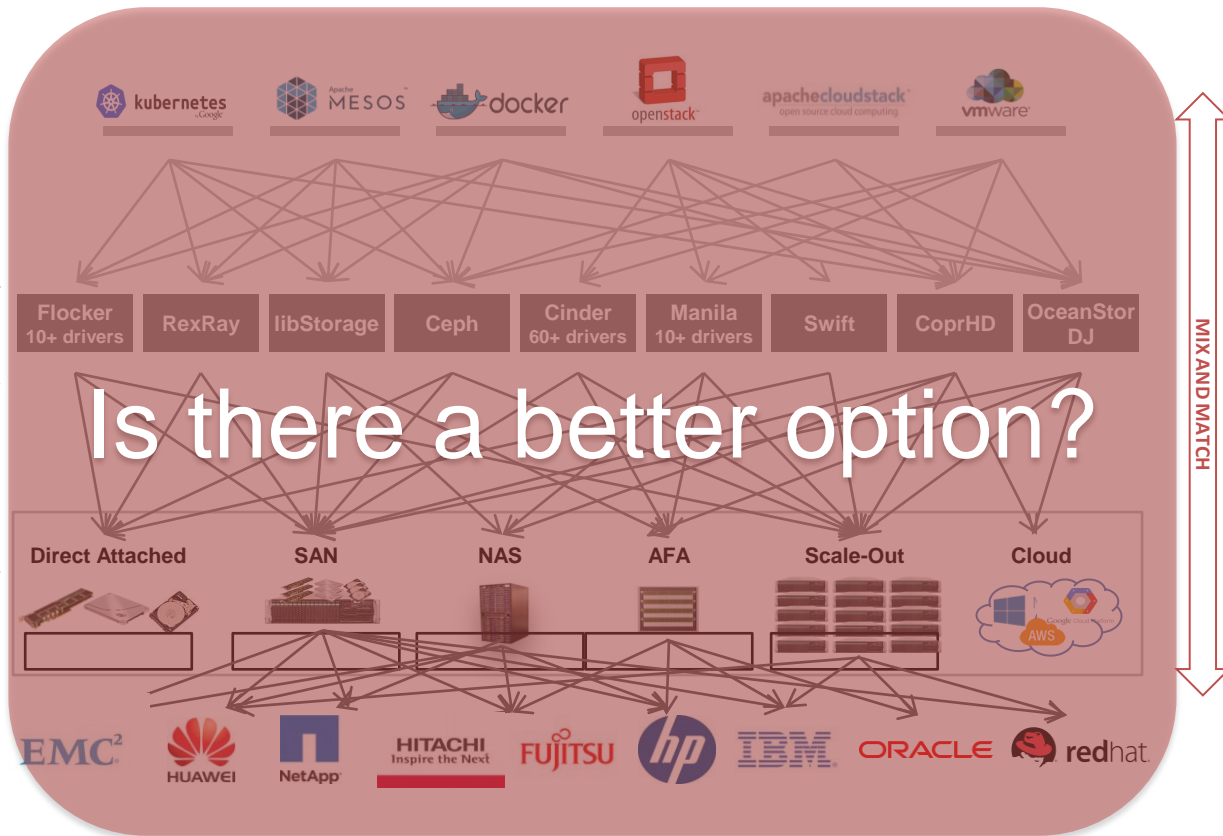


# State Of Storage Management

MULTIPLE CONTROLLERS FOR EACH FRAMEWORK

ONE DRIVER FOR EACH STORAGE PRODUCT

MULTIPLE DRIVERS FOR EACH STORAGE

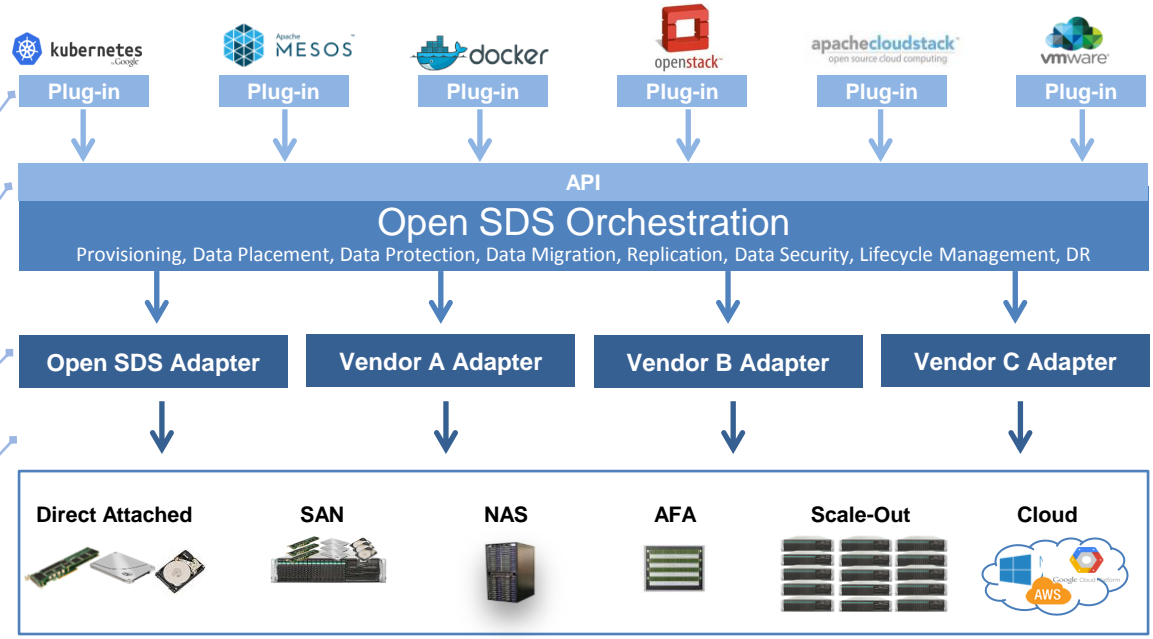


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# An Open SDS Future

**OPEN SDS CONTROLLER**

- ONE PLUG-IN FOR EACH FRAMEWORK
- OPEN SDS API
- OPEN AND VENDOR ADAPTERS THAT INTEROPERATE
- COMMON MANAGEMENT API  
Discovery  
Configuration  
Monitoring



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# Value Propositions

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

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

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

**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

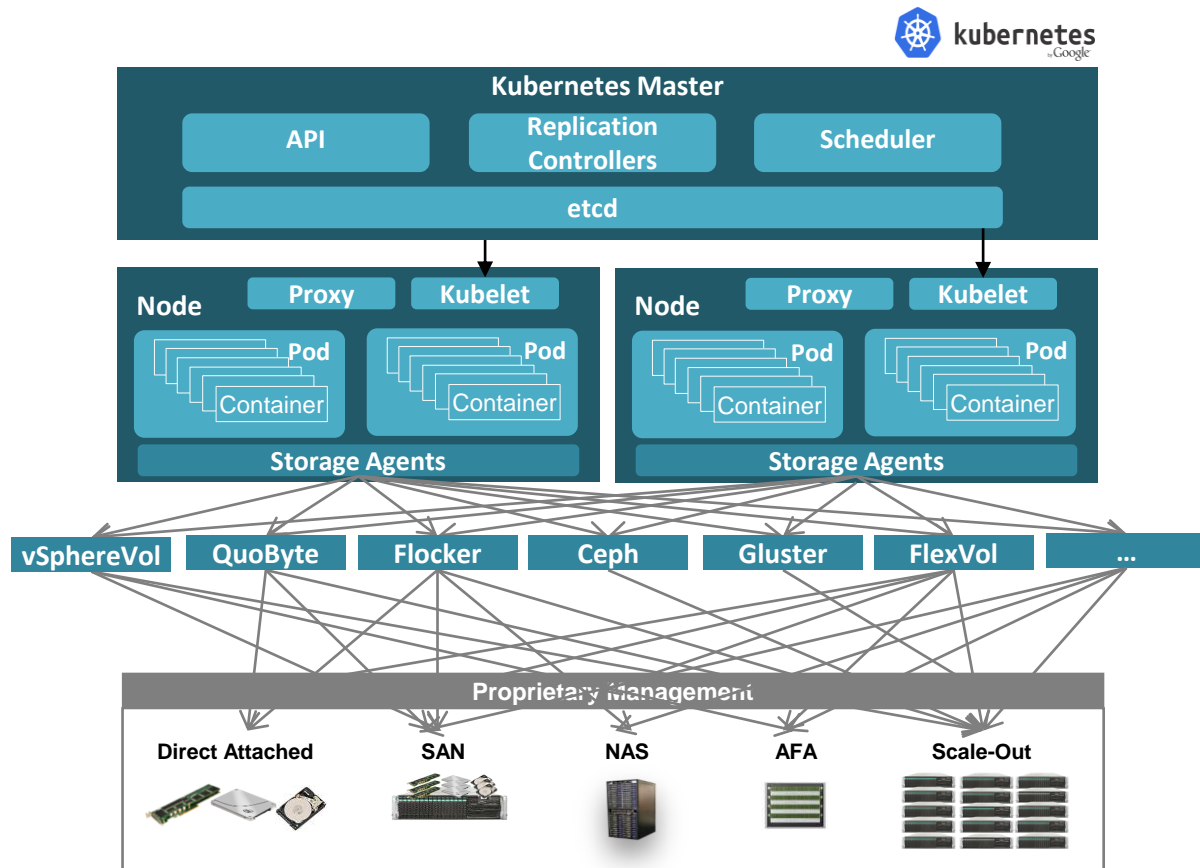
Facilitate collaboration among storage vendors, end users, and standards organizations to **solve real-world storage management problems**

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



# Storage Management For Kubernetes

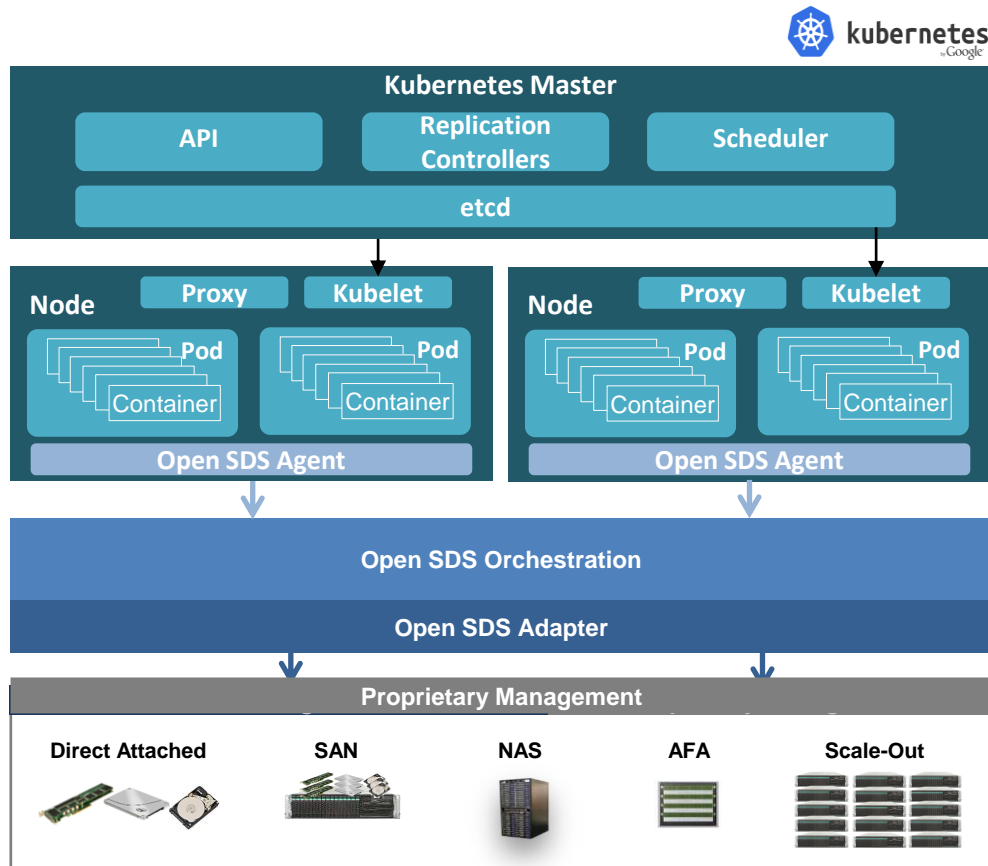
- ✓ CONTAINER ORCHESTRATION THAT IS HIGHLY AUTOMATED
- ✓ GROWING COMMUNITY AND ECOSYSTEM
- ❖ MULTIPLE CONTROLLERS SOLVING THE SAME PROBLEMS OF FAILOVER, MIGRATION, etc.
- ❖ EACH CONTROLLER SUPPORTS ONLY A LIMITED SET OF STORAGE



# Open SDS Management For Kubernetes

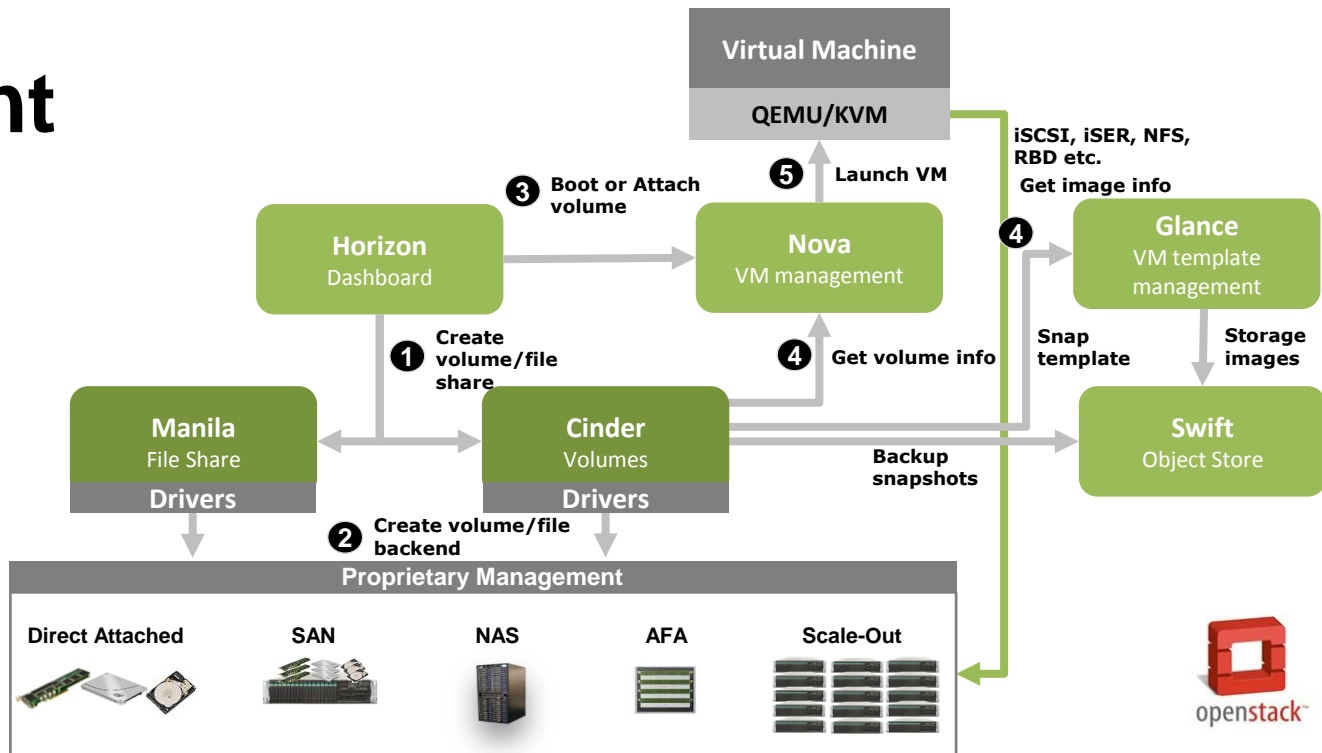
OPEN SDS CONTROLLER

- ✓ 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



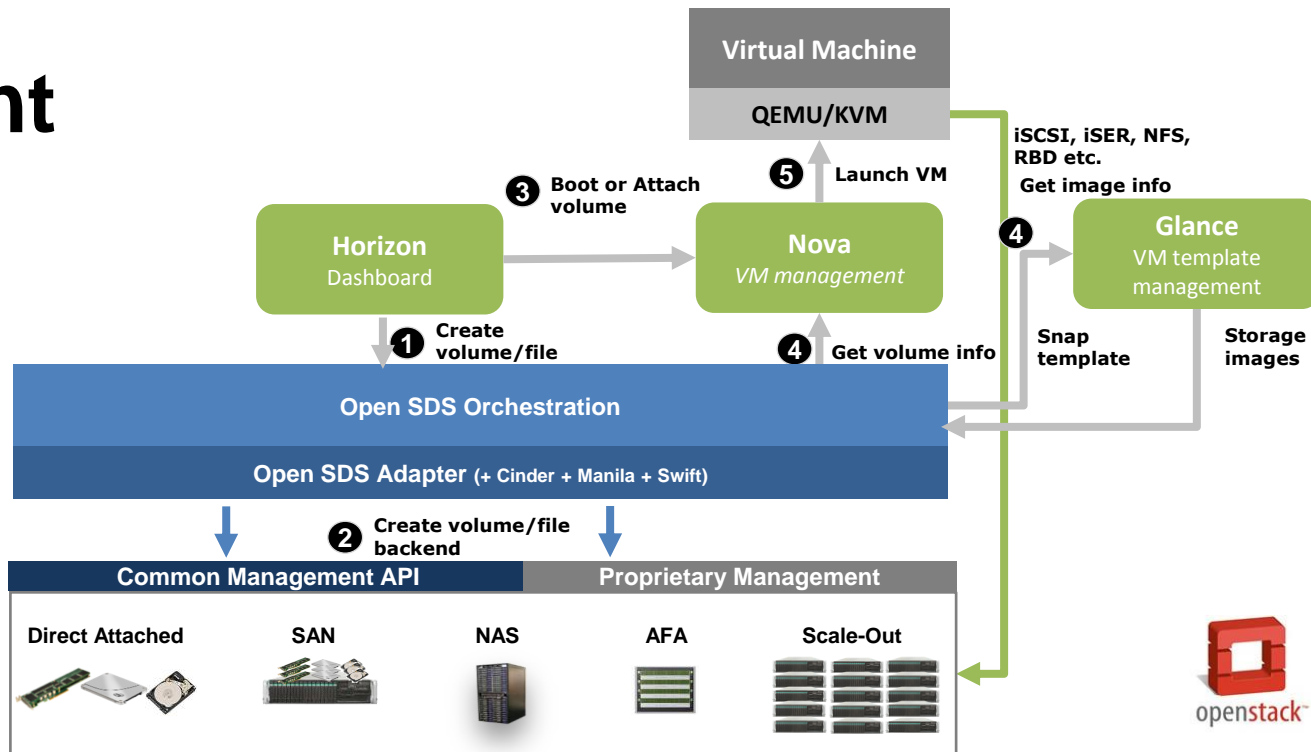
# Storage Management For OpenStack

- ✓ 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



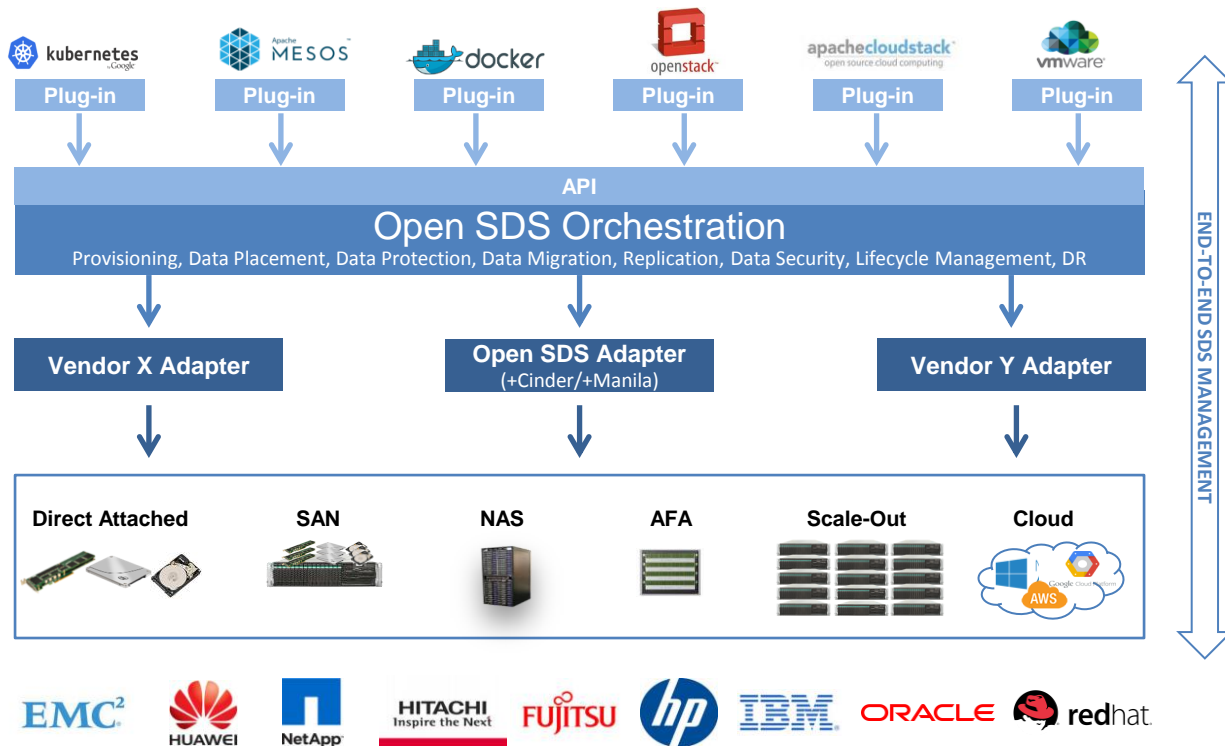
# The OpenSDS Project

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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