

# Open Data Framework for Hybrid Data Management



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soda foundation

<https://sodafoundation.io/>

IMMERSED IN DATA...



# EXPLOSION OF DATA...DAILY...!

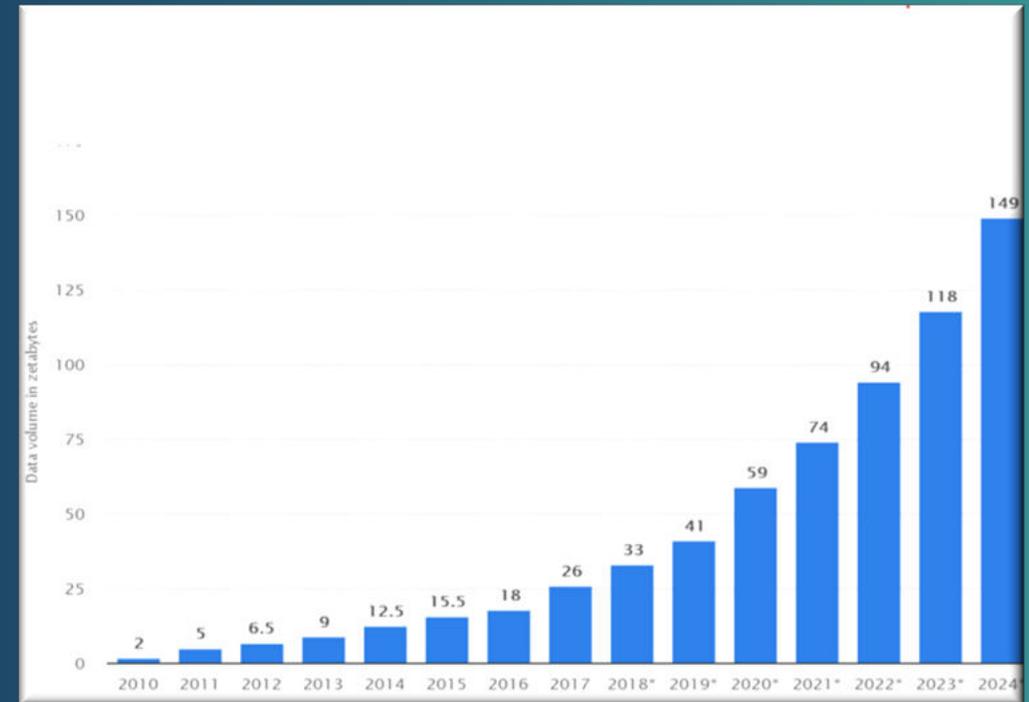
## IDC: Expect 175 zettabytes of data worldwide by 2025

By 2025, IDC says worldwide data will grow 61% to 175 zettabytes, with as much of the data residing in the cloud as in data centers.

## Data and storage predictions for the year 2025

There are other remarkable stats for the year 2025:

- The storage industry will ship 42ZB of capacity over the next seven years.
- 90ZB of data will be created on IoT devices by 2025.
- By 2025, 49 percent of data will be stored in public cloud environments.
- Nearly 30 percent of the data generated will be consumed in real-time by 2025.



1 ZB = 1000<sup>7</sup> bytes = 10<sup>21</sup> bytes = 1000000000000000000000 bytes = 1000 exabytes



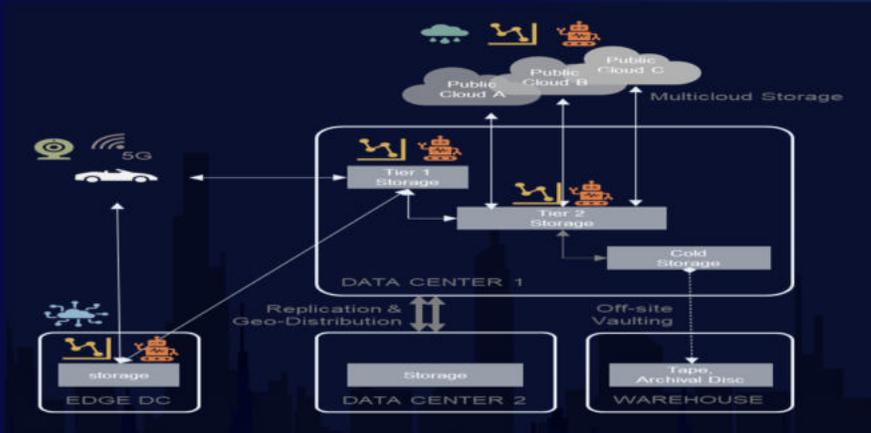
**FADING BOUNDARIES**

**SEAMLESSLY CONNECTED**

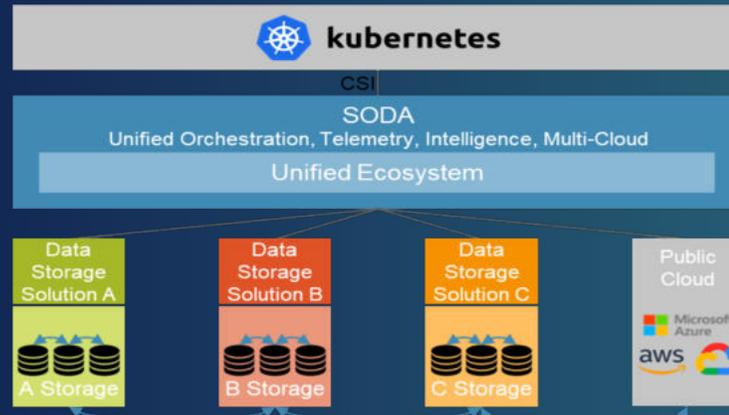


# SO MANY USE CASES

Connected Car (Edge, Core , Multi-cloud)

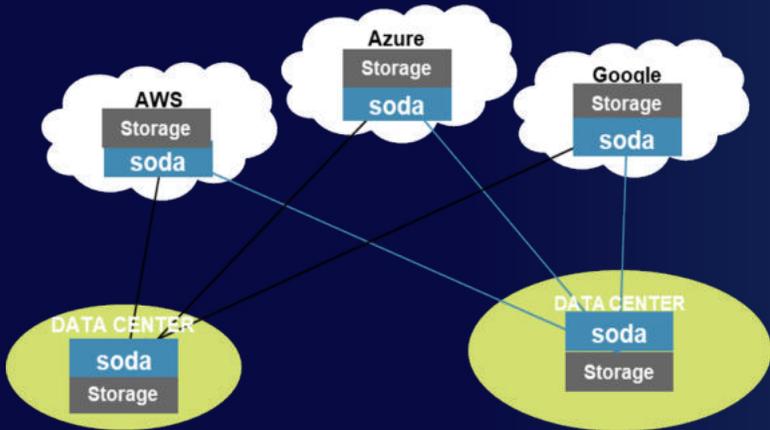
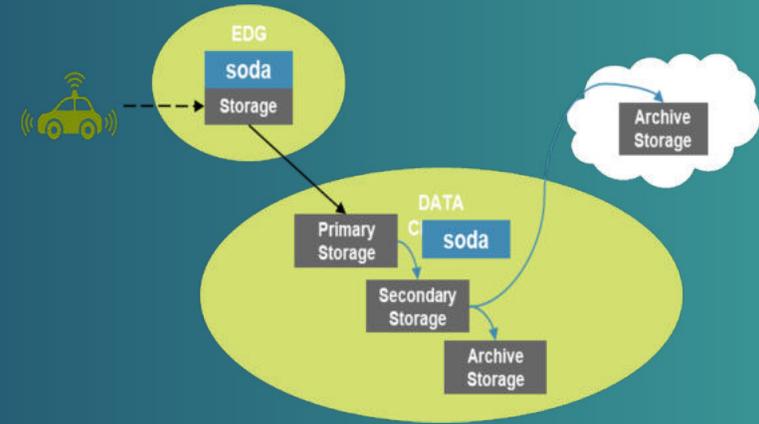


Cloud Native Storage

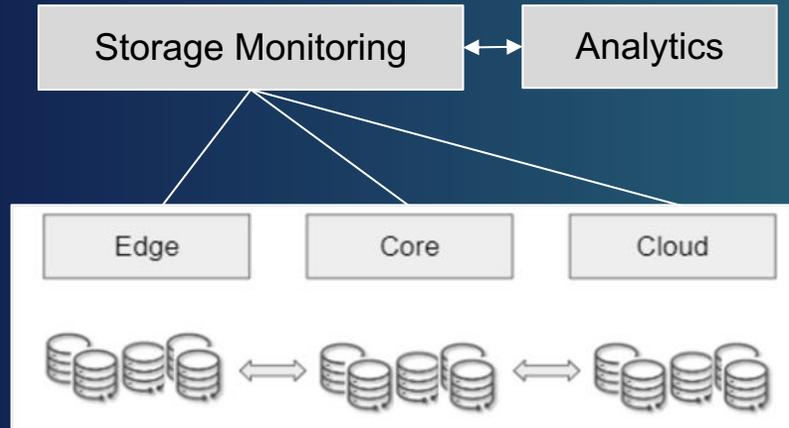


Heterogeneous Backup, Replication, Migration, Tiering, Archiving, ...

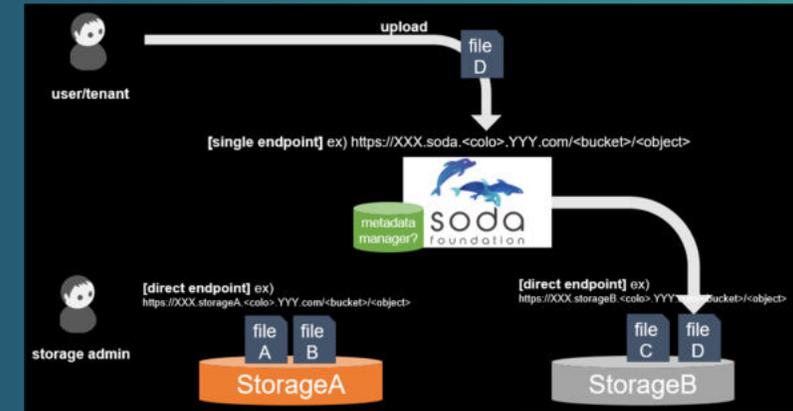
Data Lifecycle (Edge, Core , Multi-cloud)



Multi-cloud Data Management

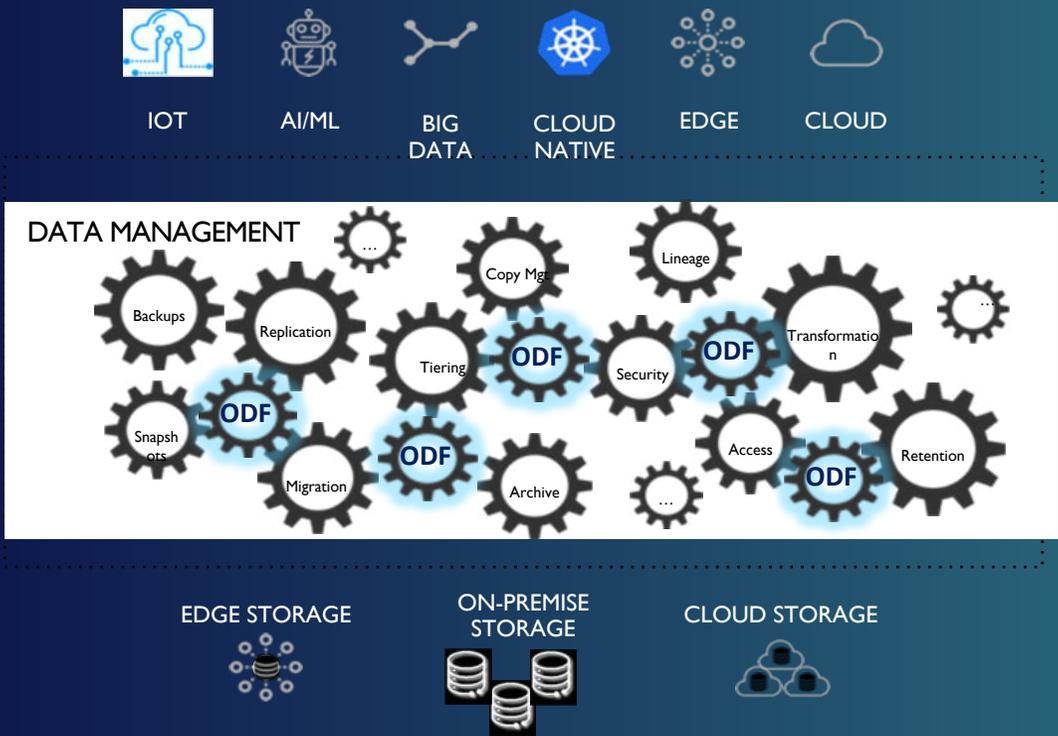


Heterogeneous Storage Monitoring



Unified Object Storage Management

# ...Fragmented Data Management



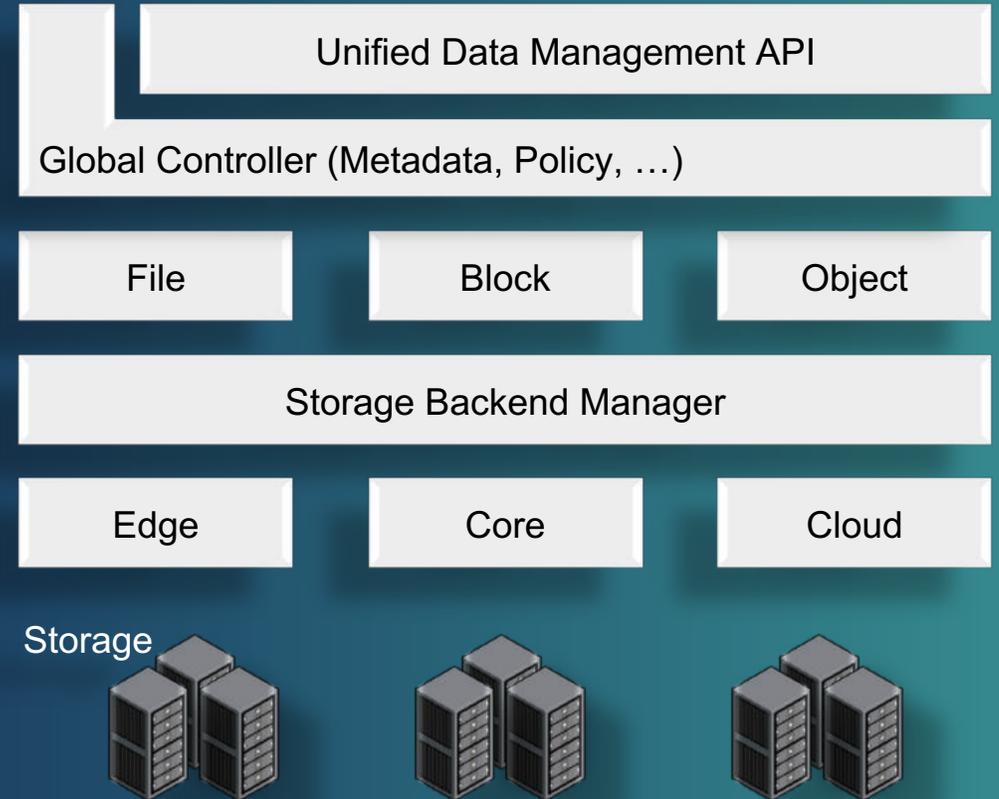
# CONNECTING DATA : OPEN DATA FRAMEWORK

UNIFY ACROSS VENDORS, PLATFORMS & DOMAINS

UNSETTLED TYPES OF STORAGE

UNPRECEDENTED DATA MOBILITY & SCALE

“REALLY” DISTRIBUTED HETEROGENEOUS



# SODA Open Data Framework

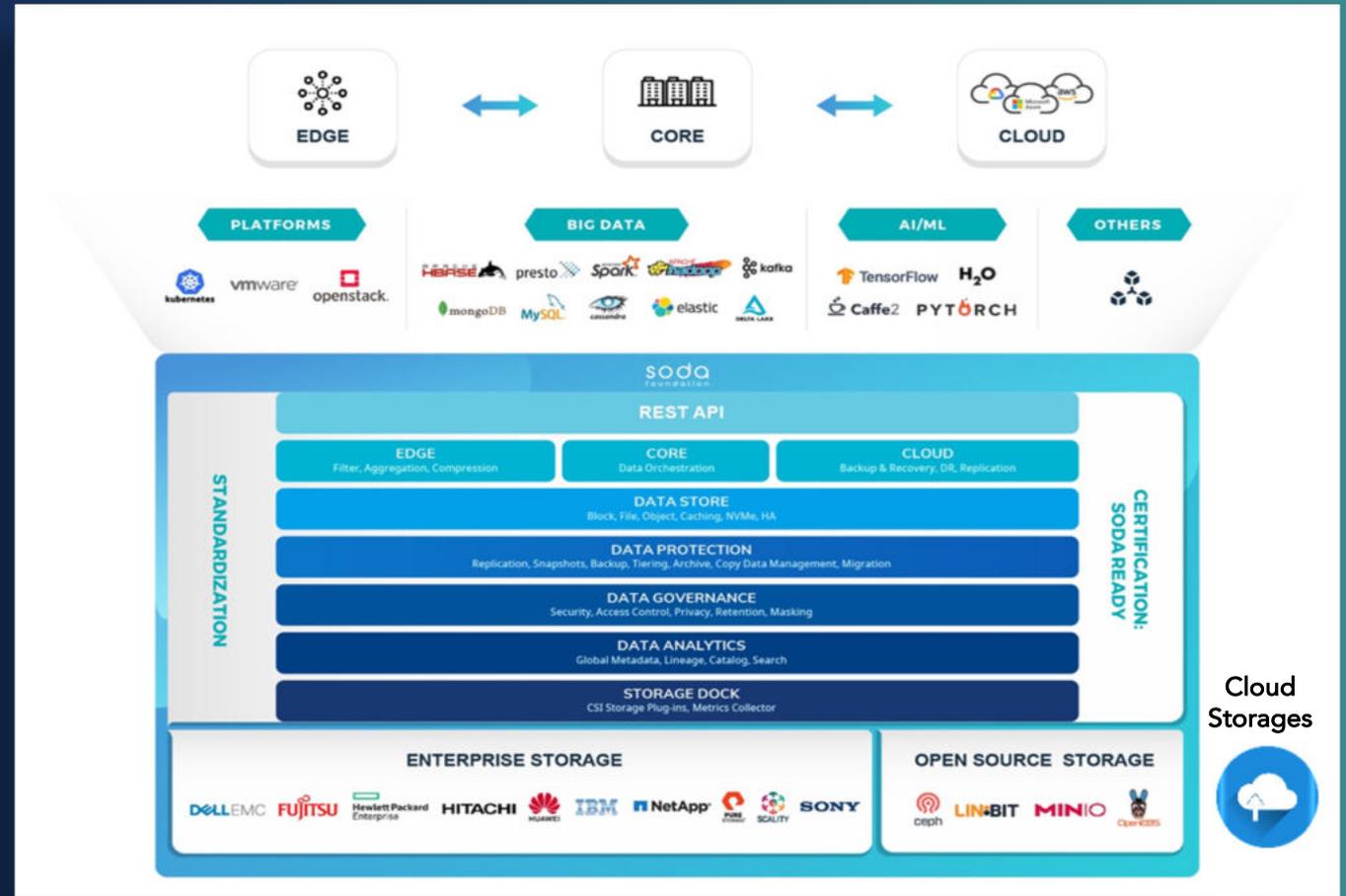
SODA Open Data Framework (ODF) is an open source software developed by SODA Foundation. ODF connects data end to end, from platform to storage, and from edge to core to cloud, and manages all the data in between. Goal is to let users use this data framework with any platform and application to build end to end solutions easily.

- KEY PROPOSITIONS

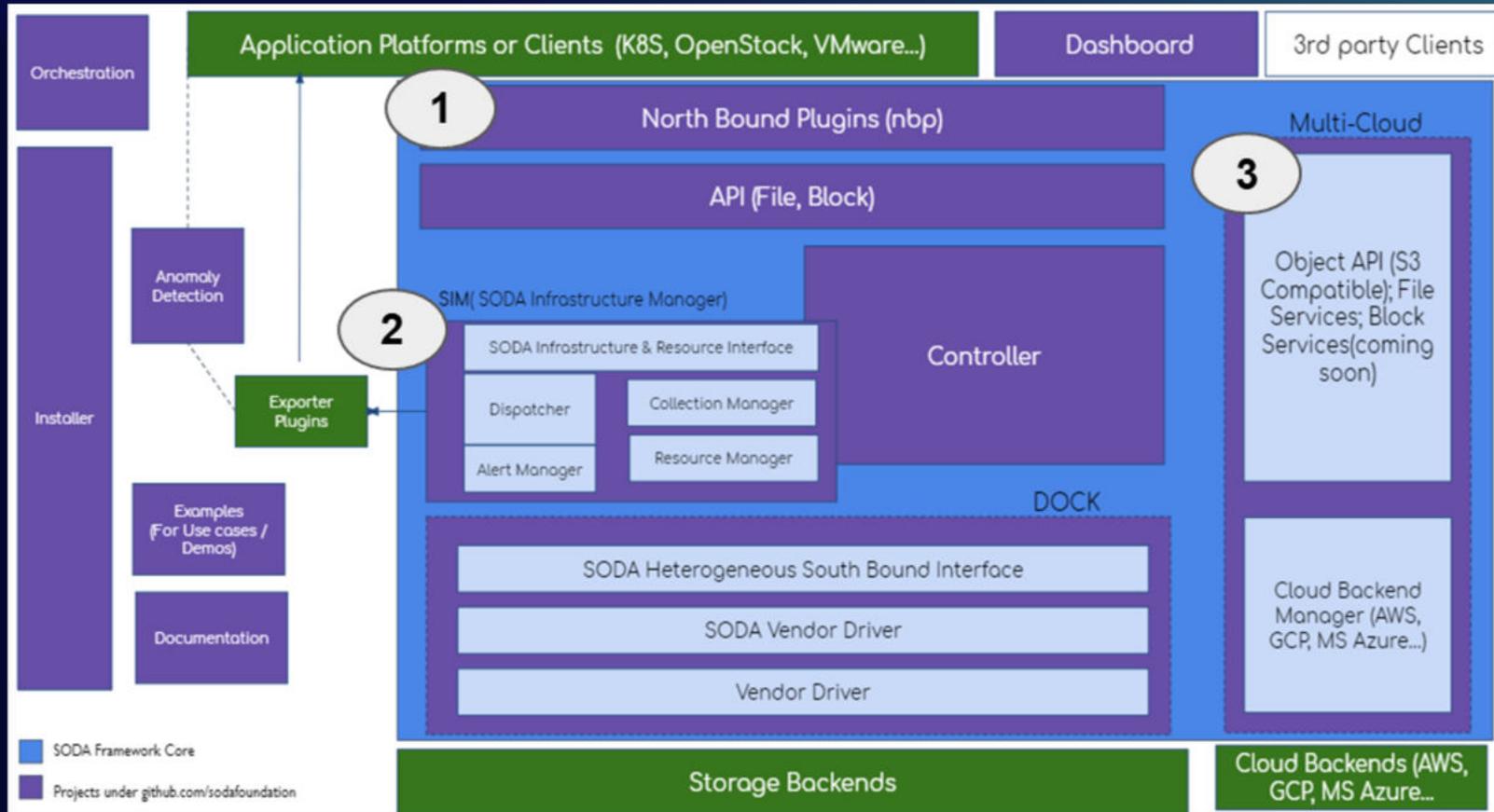
- Open Source – prevents vendor lock-in
- Connects Data Silos – eliminates data fragmentation
- Extensible – can integrate solutions and products easily

- HIGHLIGHTS

- Standardization – data and storage management
- Ecosystem – hardware, software, solutions, services
- Certification – ecosystem components, developers, operators



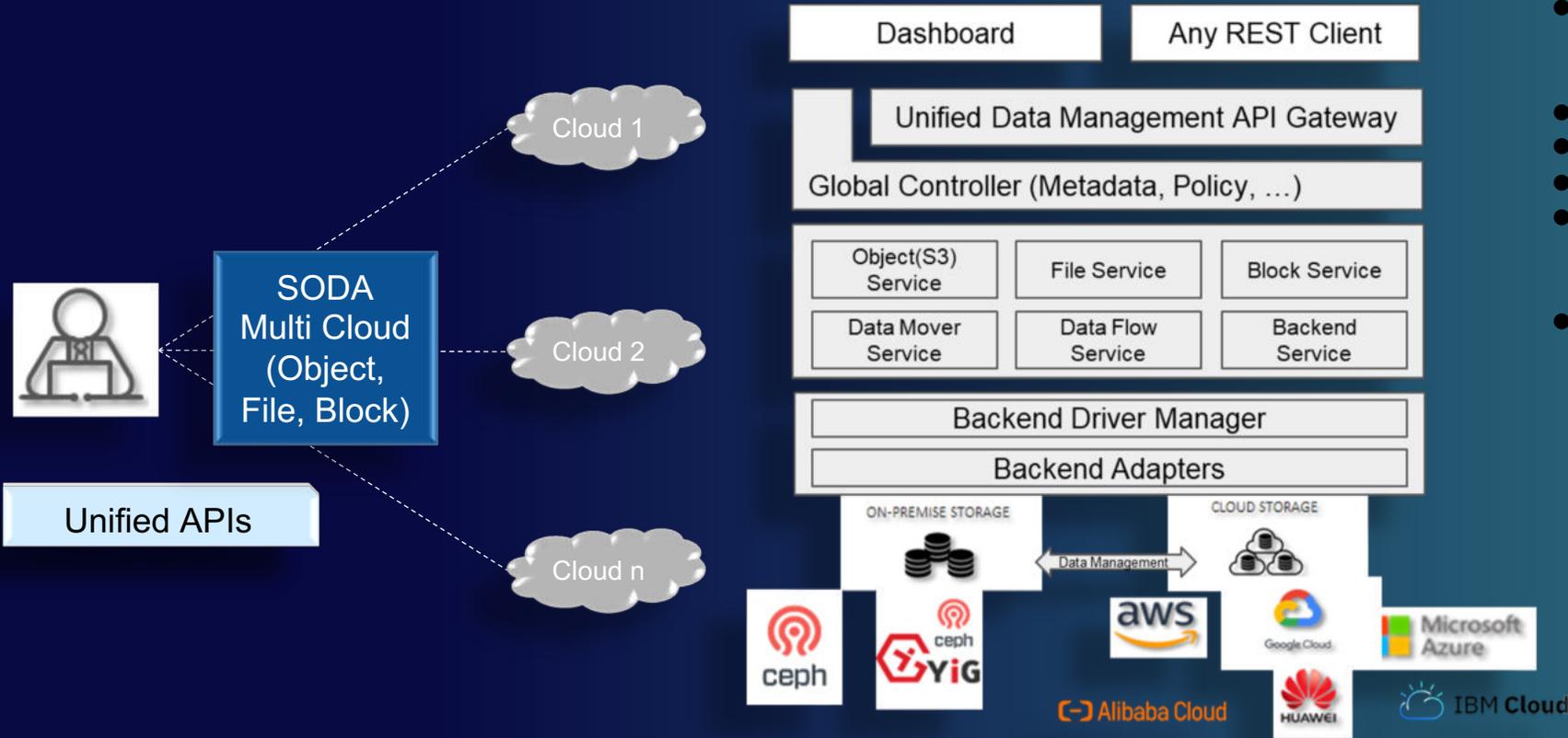
# Multiple Projects, One Framework!



- 1 Core (On-prem) Data Management Across Heterogeneous Storages (NBP, API, Controller, Dock)
- 2 Core (On-prem) Storage Monitoring Across Heterogeneous Storages (Delfin)
- 3 Multi Cloud Data Management Across Heterogeneous Cloud Vendors (and on prem) (multi-cloud)

<https://github.com/sodafoundation>  
<https://docs.sodafoundation.io/projects/>

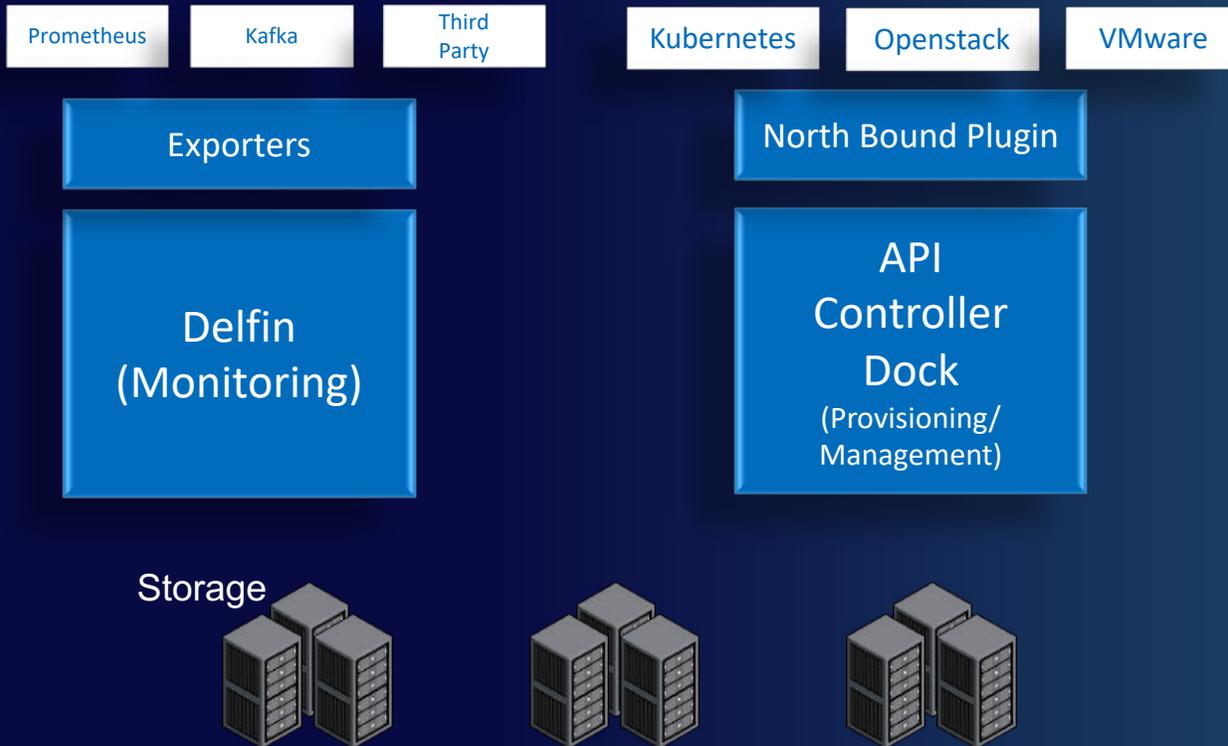
# SODA Multi-Cloud



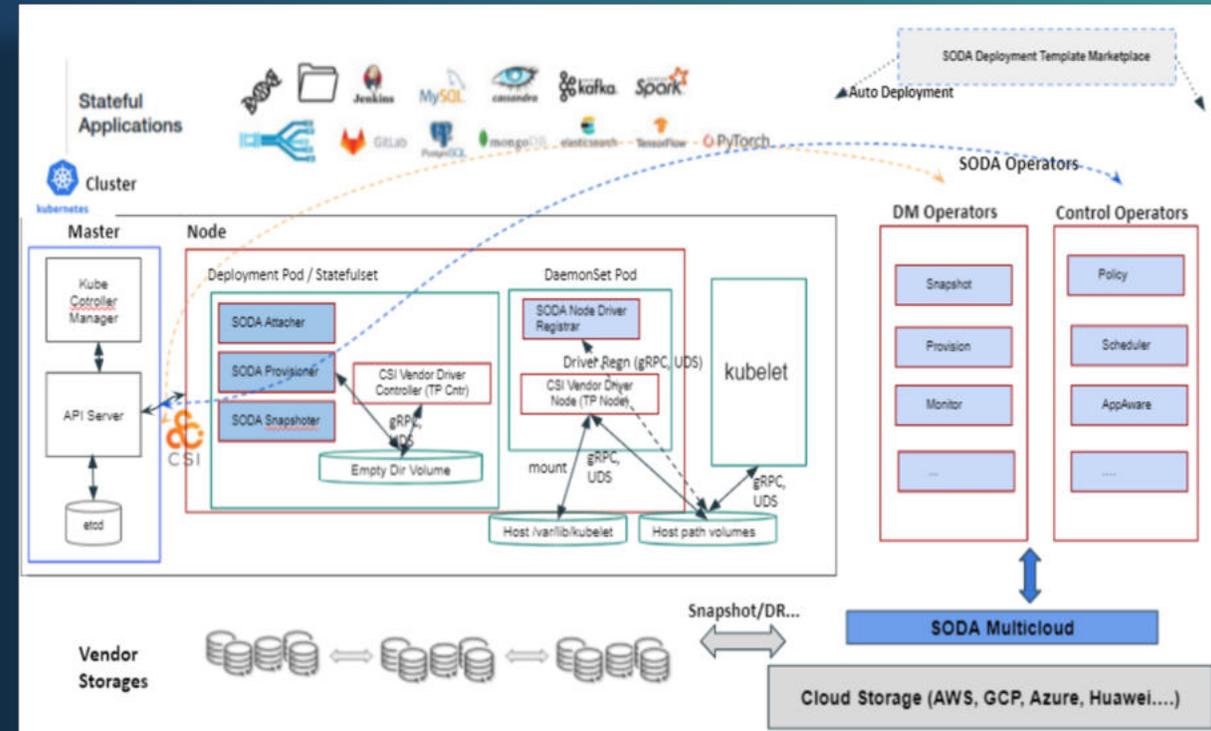
- Provides a cloud vendor agnostic data management for hybrid cloud, intercloud or intracloud.
- REST based interface
- Global Configurations
- Supports Object, File and Block
- Policy Based Data Management:
  - Data Migration
  - Data Lifecycle Management
- Heterogeneous On Prem:
  - Ceph and YIG Ceph
  - SODA On Prem Connectivity for heterogeneous storages (in progress)
- S3 Compatible Object API
- Pluggable Adapter Model for Backends (Easy to add backends)
- Security (Enhancing..)
- New / Upcoming Features:
  - HA
  - User Level Tiering
  - Automatic Bucket Management
  - User Management

# SODA On premise to Cloud

SODA On premise



SODA Hybrid (On premise and Multicloud)



# SODA Edge

Distributed & Heterogeneous Data Management Platform@Edge

Unified Data Framework  
Open  
Vendor Agnostic  
Platform Agnostic  
Distributed  
Low Resource  
Extensible or Shrinkable  
Standardized



KubeEdge

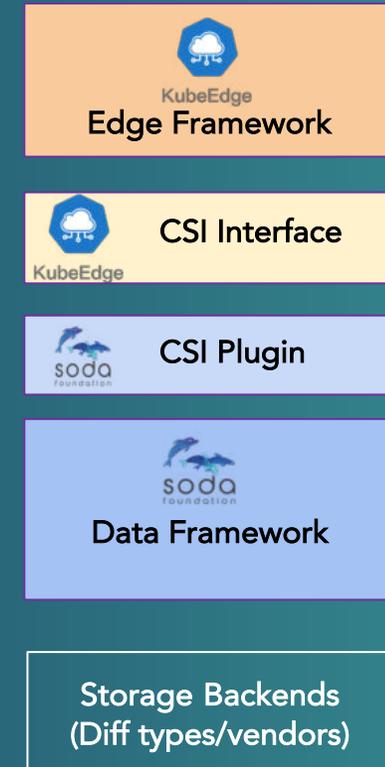


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Edge Computing Platform



Data Management Platform



# SODA ODF Releases

- Quarterly Releases
- Requirements driven by End Users and Community
- Key Directions
  - Container Storage
  - Hybrid Data Management (On premise-Multi-Cloud and Edge(planning))
  - Heterogeneous Storage Monitoring

## ..and Join Us



SODA **Github:**

<https://github.com/sodafoundation>

SODA **Slack:**

<https://sodafoundation.io/slack/>



# Thank You!



<https://sodafoundation.io/>

SODA **Source Code**: <https://github.com/sodafoundation>

SODA **Docs**: <https://docs.sodafoundation.io/>

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