

GOTC

全球开源技术峰会

THE GLOBAL OPENSOURCE TECHNOLOGY CONFERENCE

OPEN SOURCE , OPEN WORLD

SODA: Building A Data & Storage Ecosystem Together

Steven Tan

SODA Foundation Chairman
VP & CTO Cloud Solution - Storage, Futurewei





FOUNDED BY

ENGINEERS



PROJECTS

EVENTS

全球开源技术峰会

THE GLOBAL OPENSOURCE TECHNOLOGY CONFERENCE

COMMUNITY



soda foundation

EVENTS



SODA Foundation is an open source project under Linux Foundation

MISSION

- To foster an ecosystem of open source data management and storage software for data autonomy
- To offer a neutral forum for cross-projects collaboration and integration
- To provide end users quality end-to-end solutions

全球开源技术峰会

THE GLOBAL OPENSOURCE TECHNOLOGY CONFERENCE

PREMIER MEMBERS



GENERAL MEMBERS



SUPPORTERS

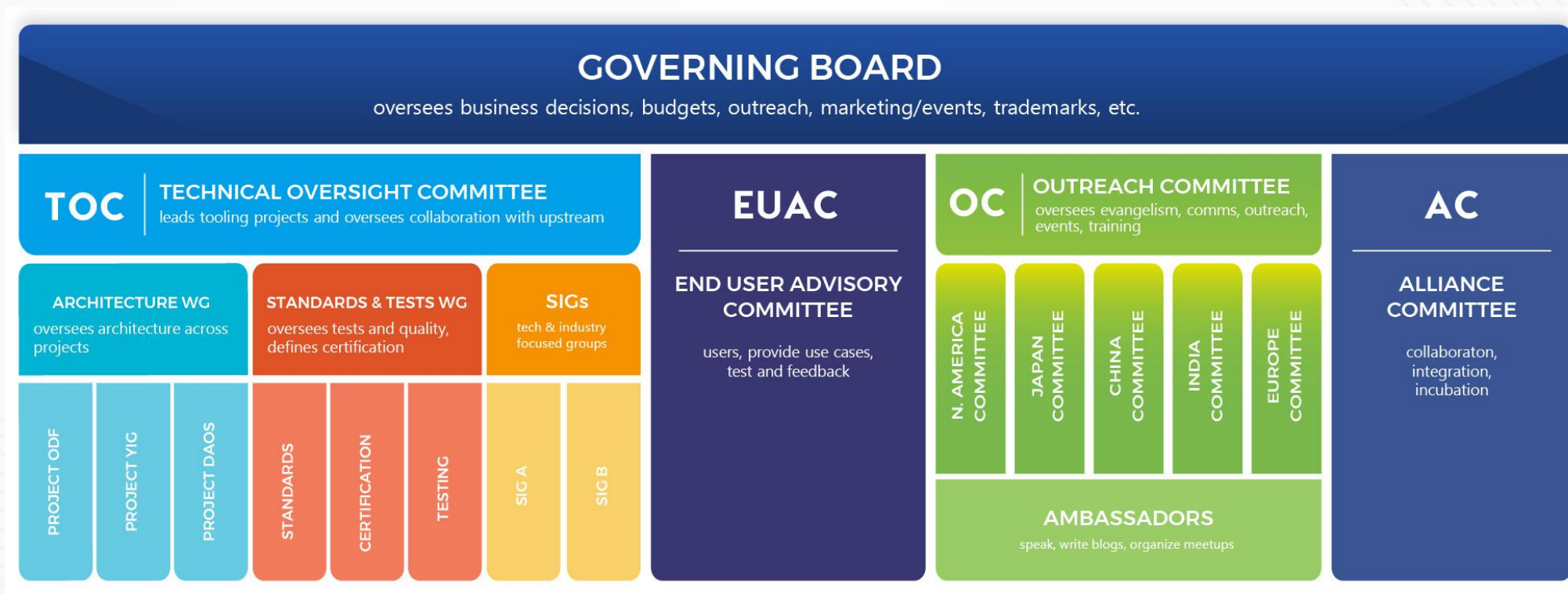


ASSOCIATE MEMBERS



ALLIANCE PARTNER







STEVEN TAN,
FUTUREWEI
(CHAIRMAN)



YUJI YAZAWA,
TOYOTA
MOTOR CORP
(VICE-CHAIR)



SUN
FANGCHEN
CHINA UNICOM



ANJANEYA
REDDY
CHAGAM, INTEL



SHINYA
HAMONO,
FUJITSU



KEI KUSUNOKI,
NTT
COMMUNICATIONS



RAKESH JAIN,
IBM



YOSHIYA ETOU,
FUJITSU,
LF FELLOW
(ADVISOR)

2

2



END USERS

SODA is an end-user driven foundation. End users drive roadmap requirements, provide use cases, test and provide feedback, and guide opportunities for data and storage technologies.

The SODA End User Advisory Committee meets regularly and provides guidance to the Board and TOC. The organizations represented in the EUAC manages some of the biggest data in the world.



Yuji Yazawa
Toyota Motor Corp



Cosimo Rossetti
Vodafone



Zhong Xin
China Unicom



Kei Kusunoki
NTT Communications



Tomoko Kondo
Softbank



Zhan Shu
China Construction Bank Fintech



Yusuke Sato
Yahoo! JAPAN



Wim Jacobs
KPN



Michiharu Nakazawa
Sakura Internet



Mitchitaka Terada
Internet Initiative Japan



Wei Rao
China Railway



Shinya Tsunematsu
GMO Pepabo

SODA END USER ADVISORY COMMITTEE



THE OPEN DATA FRAMEWORK (ODF)

ODF connects data end to end, from platform to storage, and from edge to core to cloud, and manages all the data in between.

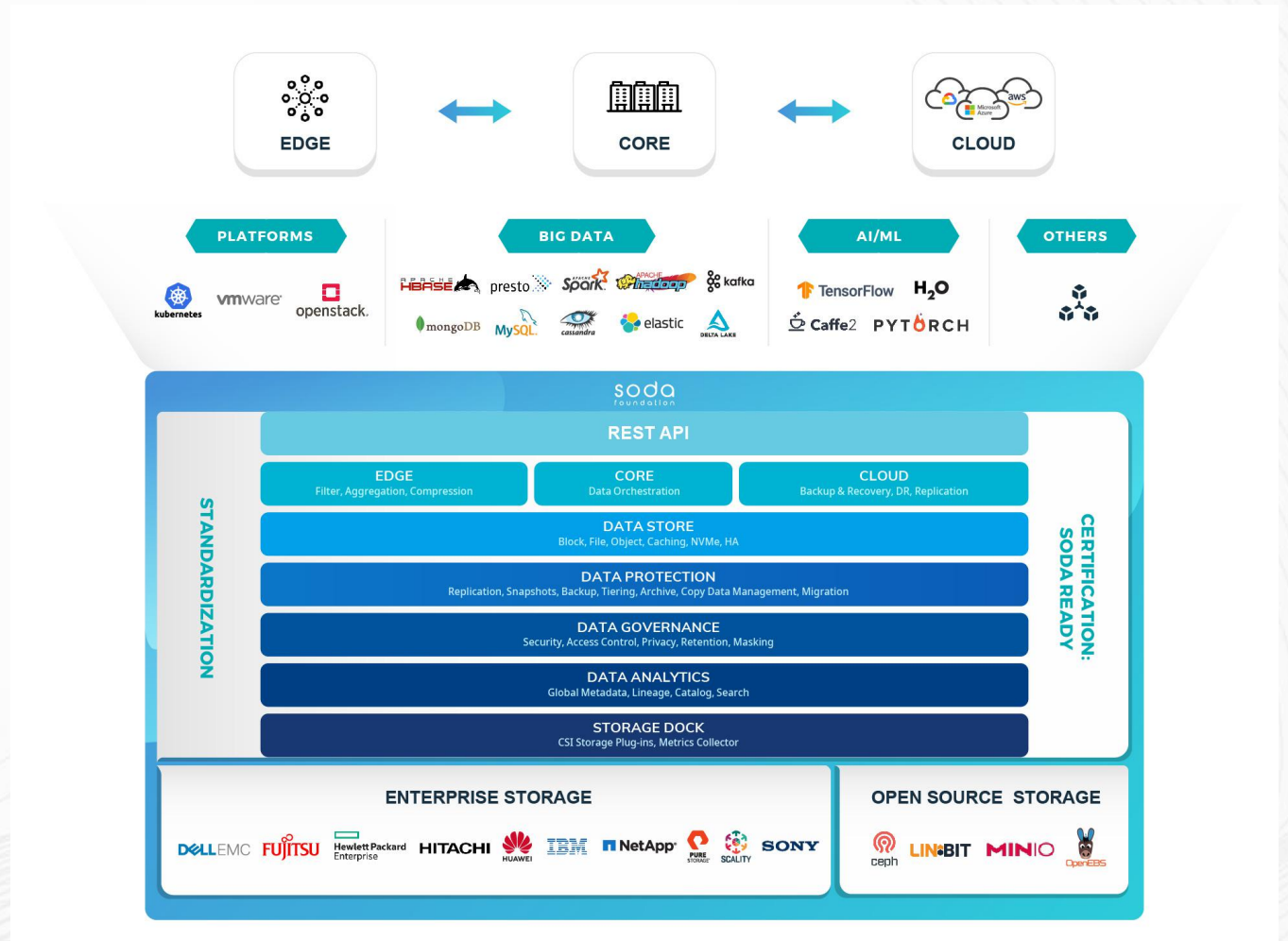
- Open Source
- Connects Data Silos
- Extensible

HIGHLIGHTS

Standardization for data and storage management

Ecosystem of hardware, software, solutions, services

Certification for ecosystem components, developers, operators

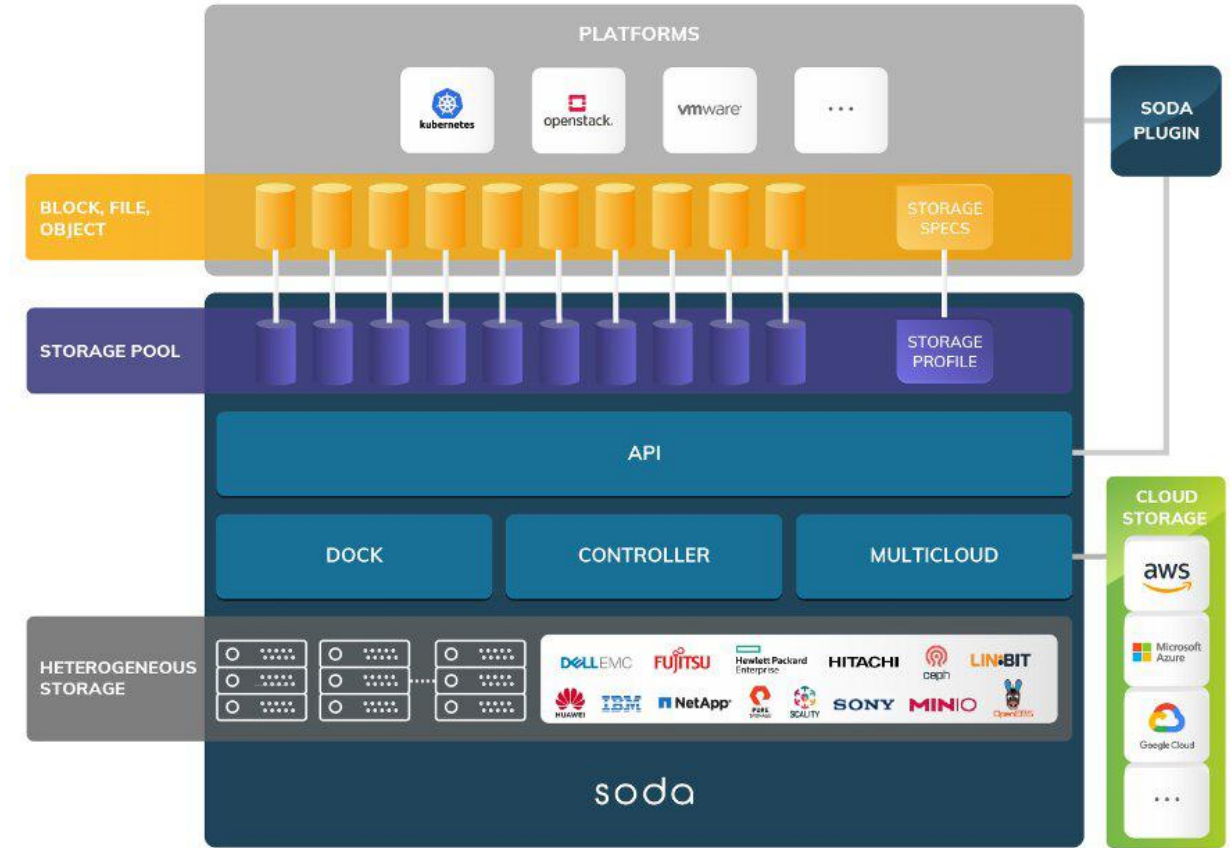


ODF ARCHITECTURE

Unify frameworks with standard data policies.
Simplify operations through AI/ML & automation

KEY FEATURES:

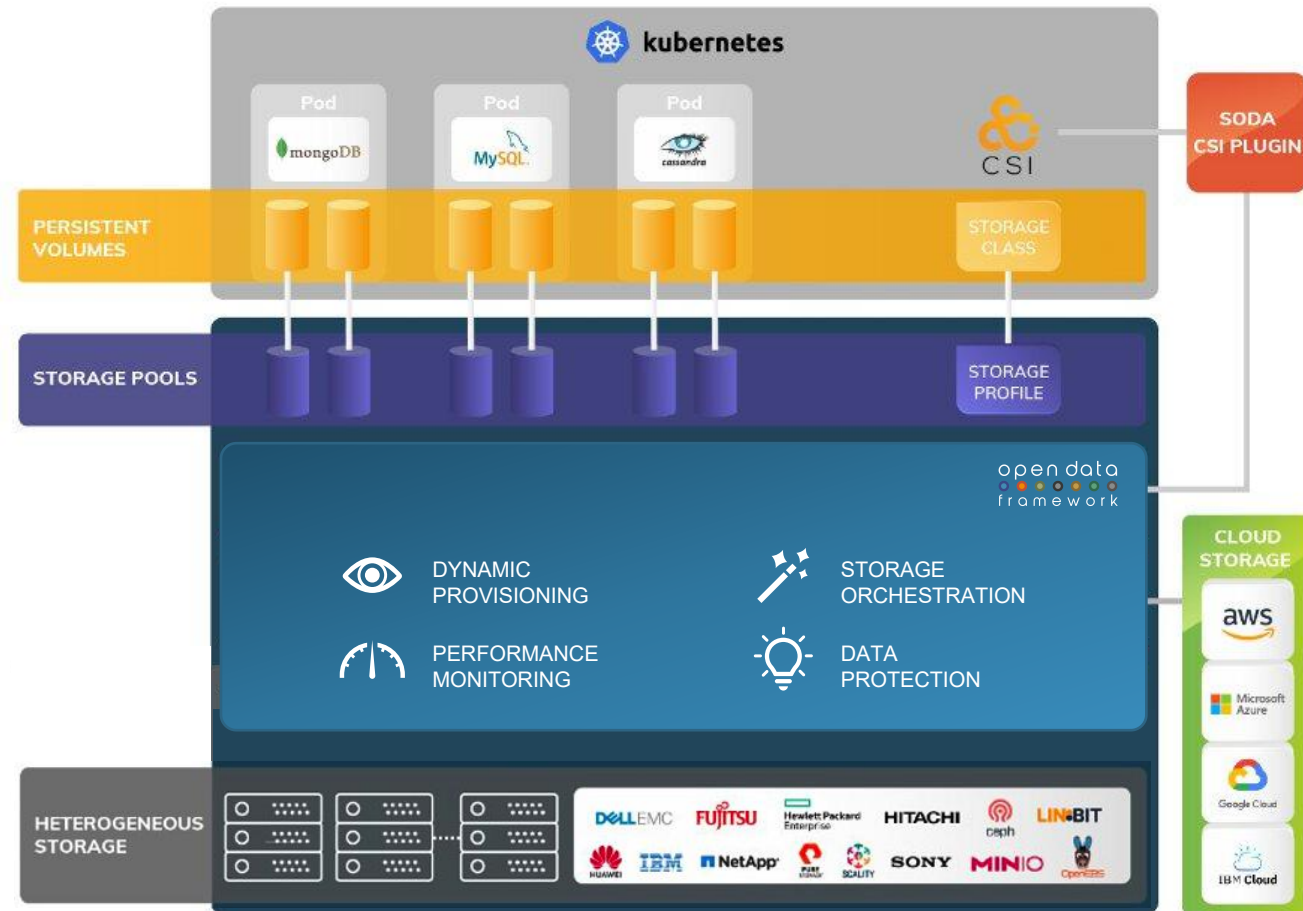
1. block, file, object storage with API standardization
2. heterogeneous storage provisioning and monitoring
3. hybrid/multicloud to AWS, Google, Azure, Huawei, IBM, Alibaba clouds
4. support K8S, OpenStack, Vmware
5. Prometheus & Kafka integration
6. Performance visualization with Grafana
7. Performance anomaly detection
8. CSI plug & play

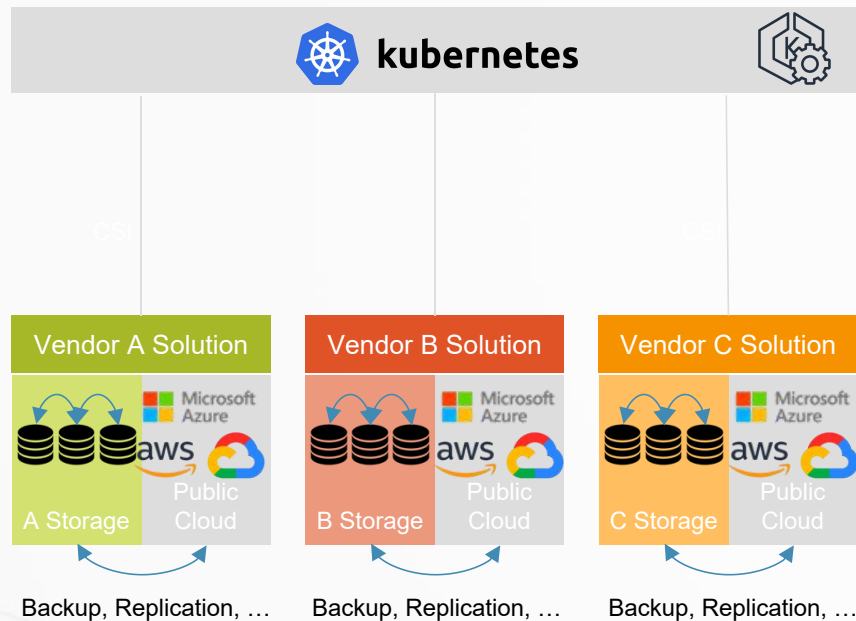


ODF can be installed on any Kubernetes cluster with Helm, with kubectl, or Ansible.

KEY FEATURES:

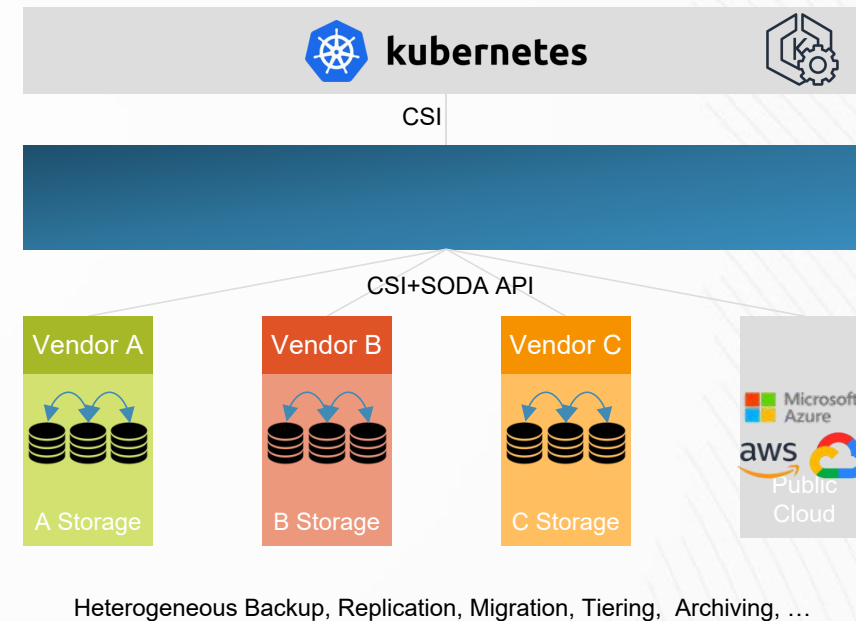
1. Seamless K8s integration with SODA CSI plug-in
2. Provides block and file services
3. Dynamic provisioning for K8S persistent storage with policy-driven Storage Profile
4. Orchestrate storage snapshots and replication
5. Monitor performance, resources, and alerts across different vendor storage
6. Data protection with recurring snapshots schedule
7. Support heterogeneous vendor storage with CSI and SODA native drivers
8. Create HA volumes so a K8s cluster can fail over to a second cluster





WITHOUT SODA ODF:

- Need to manage multiple CSI plugins
- Provisioning for vendor-specific storage
- Storage not interoperable
- Vendor data silos in vendor storage and cloud
- Hard to monitor multi-vendor storage performance
- Cloud functionalities varies by vendor

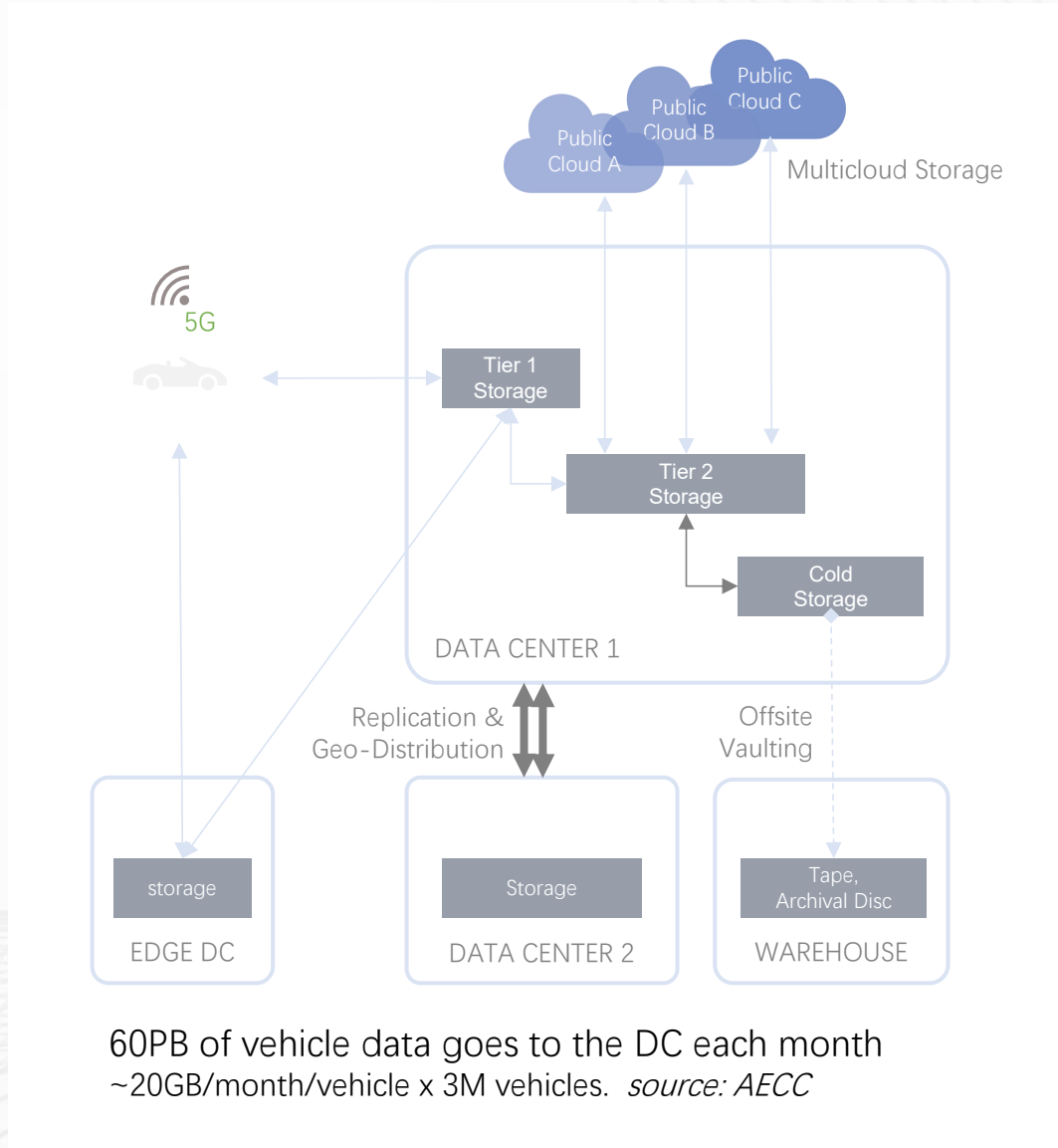


WITH SODA ODF:

- Easy to manage single CSI plugin
- Dynamic provisioning across multi-vendor storage clusters
- Replicate data across heterogeneous storage
- Consistent data management with standard policies
- Storage performance monitoring in a single pane
- Synchronized data between on-premise storage and cloud

open data framework Services For Connected Car Platform	
block, file, object	block, file, object storage for edge, DC multicloud storage
backup & recovery	backup to cloud or tape snapshots from tier2 to cloud
lifecycle & tiering	edge to DC tier 1 to tier 2, tier2 to cloud, tier2 to cold
security & compliance	edge, DC, & cloud security and compliance offsite tape/archive
retention & archive	tier2 to cold storage (tape/archive disc) tier2 to cloud for long term retention

Develop a customized solution or leverage an open unified data management framework?



60PB of vehicle data goes to the DC each month
~20GB/month/vehicle x 3M vehicles. *source: AECC*

Open Design, Open Development

OPENSDDS (PRE-SODA)

- 2017H2 Zealand
- 2018H1 Aruba
- 2018H2 Bali
- 2019H1 Capri
- 2019H2 Daito
- 2020Q1 Elba

FAROE v1.0

- Heterogeneous Storage Management
- Block/File Multi cloud
- CSI Plug & Play experiment

GREENLAND V1.1

- Prometheus & Kafka integration
- Storage Performance Monitoring (SPM)
- Multicloud object and file
- AWS, Azure, GCP
- CSI Plug & Play
- Edge data management
- NetApp ONTAP & more

HAWAII V1.2

- Performance anomaly detection
- Performance visualization with Grafana
- Enhanced cloud file shares for AWS, GCP, Azure, Huawei
- Enhanced block AWS
- More storage support - IBM SVC, HDS VSP, EMC VNX

ISABELA V1.3

- Improved storage monitoring
- Monitor NAS performance
- Grafana performance visualization
- HA support with multi-cloud
- Cold storage
- CSI plug-n-play with more drivers
- More on-prem and cloud backends

JERBA V1.4

- Plug-in any CSI driver
- Multiple CSI drivers in K8S
- Container data protection (Restic)
- Application consistent snapshot to cloud
- Multi-cloud storage tiering
- Storage performance monitoring with more metrics
- Bucket management for all cloud backends



<https://github.com/sodafoundation>

Towards Open Data Autonomy

KALPENI V1.5

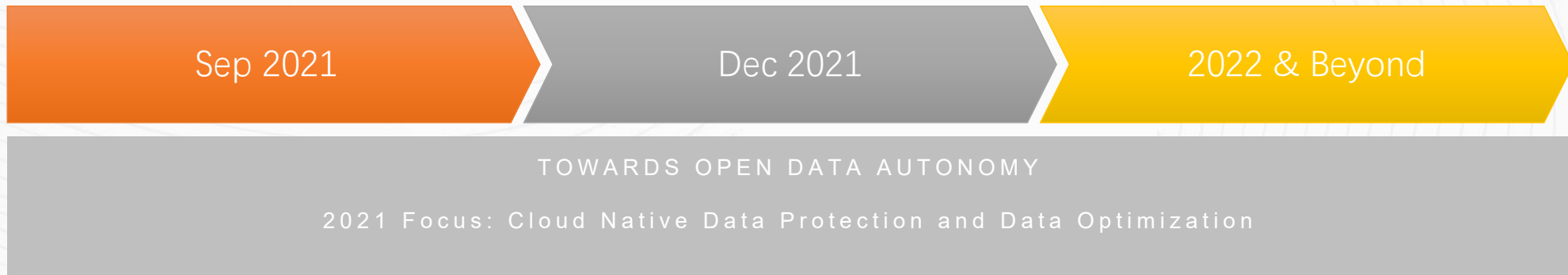
- K8s clusters snapshots and backup K8s objects to S3-based object storage
- Storage monitoring for CSI storage
- Schedule recurring backups to NFS

L RELEASE V1.6

- Data optimization with storage tiering
- Anomaly detection for CSI storage
- Schedule recurring backups to S3-compatible secondary or cloud storage

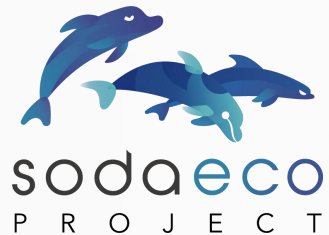
V2.x

- Data security and compliance
- Storage monitoring & anomaly detection for cloud storage



SODA ECO PROJECT PROGRAM

GOTC



LAUNCHING AT SODACON GLOBAL Jul 13

The SODA Eco Project Program provides services to projects to help them develop, grow and be adopted by end users. It helps projects join the SODA ecosystem, integrate with the SODA Open Data Framework (ODF), and introduce them to end users and the SODA community.

Project must be or plan to be open source with an OSI approved license.



Join: <https://sodafoundation.io/ecoproject/>

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The SODA community is growing around the world with regular meetups in Japan, China, and India

中国区启动仪式嘉宾
soda foundation



王庆
英特尔云计算软件开发
总监



钟忻
联通沃云C



舒展
信金科 平台部



潘家铭
曙光存储研究院有限公司



李道莲
鼎 副总经理



蒋晓黎
华为IT开源生态
总经理



Steven Tan
VP&CTO Cloud Solution
at Futurewei





Vendors, end users, and other organizations join SODA for these key benefits:



Community Engagement
engage with developers, vendors and end users in our meetings, meetups, and conferences



Brand Recognition
bring awareness to your organization, project, and things that matter to the SODA community and our partners' communities



Thought Leadership
participate in our committees (TOC, AC, OC, EUAC) and workgroups to drive SODA technical direction and other activities



POC Solution
opportunities to participate in SODA proof-of-concept (POC) solution testing where vendors and end users work together closely



Speaking Opportunities
opportunities to speak at our meetups and SODACON's virtual and worldwide



Open Innovation
accelerate development and bring value to organizations through open innovation in the SODA ecosystem



Press Release
press release announcement when joining SODA and possibilities of mentions or quotes in other SODA press releases

Join: <https://sodafoundation.io/join/>



sodacon

— Global 2021 — July 13-14

Data and Storage Matters

Virtual #sodacon2021

Free Registration Code
GOTCSODA



Keynote

Sam Werner
IBM Senior Storage
Product Executive
IBM



Keynote

Steven Tan
SODA Board Chairman and
VP & CTO of Cloud Solution
Futurewei



Keynote

Tomoko Kondo
Director, Softbank Corp.
Softbank



Keynote

Wendao Yang
General Manager,
Data Management System,
Huawei



Keynote

Yoshiya Eto
Linux Fellow
Principal Architect
Fujitsu



Keynote

Xin Zhong
CTO of Smart Cloud BU
China Construction Bank Fintech



Keynote

Yuj Yazawa
Principal Engineer
and Group Manager
Toyota Motor Corporation



Keynote

Andrey Kudryavtsev
HPC Storage Solution Architect
DAOS Product Manager
Intel Corporation



Keynote

Cheryl Hung
VP Ecosystem,
CVP



Keynote

Jonathan Bryce
Executive Director,
Open Infrastructure Foundation



Keynote

Junwei Liu
GM of IaaS Product Division at
China Mobile Cloud Capability
Center, Director of Open
Infrastructure Foundation



Keynote

Kai Kusunoki
Innovation Center, Manager,
NTT Communications TOC Co-chair,
Member Governing Board,
SODA Foundation



Keynote

Paul Speciale
Chief Product Officer,
Scality



Keynote

Richelle Ahlvers
Storage Management Architect,
Intel Corporation
Board Advisor, Snia
SMA (2011-)

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THANK YOU

Please visit the SODA booth

www.sodafoundation.io

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