

THANKS FOR JOINING

**THE WEBINAR WILL START
IN A BRIEF MOMENT**

OpenEBS



OpenEBS



Kubernetes data management is more than CSI - Do it right the OpenEBS way



Your Presenters:



Murat Karslioglu

VP of Products
MayaData Inc



Kiran Mova

Chief Architect
Co-Founder
MayaData Inc



Brian Matheson

Developer Advocate
MayaData Inc



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murat



kiranmova



[@brian_matheson](https://twitter.com/brian_matheson)



Brian Matheson

OpenEBS adopted by many organizations like

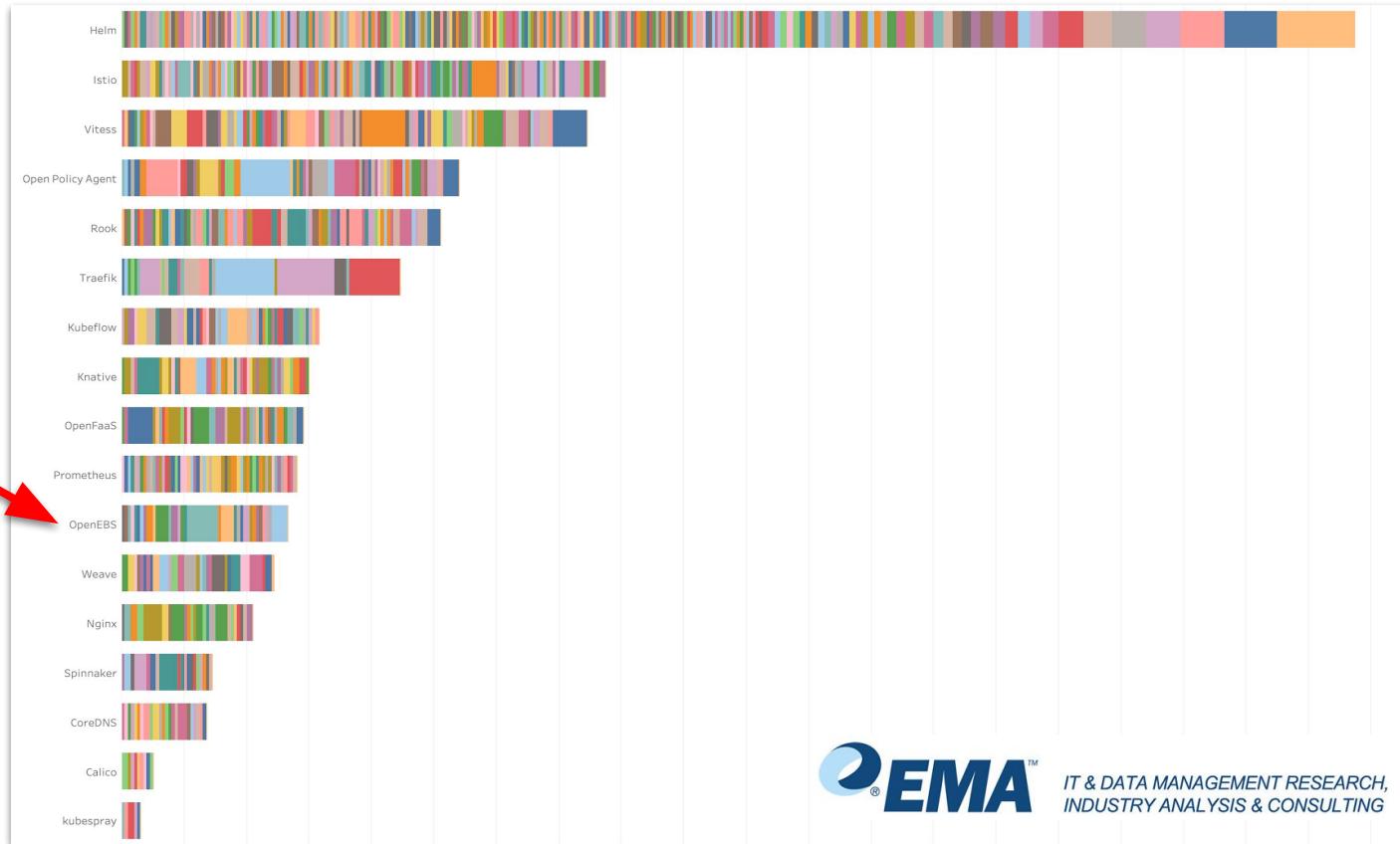


ARISTA



Who turn Kubernetes into a Dataplane

OpenEBS was popular on Twitter During KubeCon



IT & DATA MANAGEMENT RESEARCH,
INDUSTRY ANALYSIS & CONSULTING

MayaData Contributes a lot of Code to the CNCF

PRs Authors Companies Table ▾

Range Last decade ▾ Repository group All ▾

All CNCF PRs authors companies (Repository group: All, Range: Last decade) ▾

Rank	Company	Opened PRs
1	Google	65403
2	Red Hat	33443
3	VMware	9837
4	Independent	7815
5	Microsoft	6421
6	Huawei	4325
7	PingCAP	3388
8	IBM	3326
9	MayaData	3246

Agenda

- Chat with Project Founder Kiran Mova:
 - The What, Why, and How of OpenEBS
- Top Use Cases for OpenEBS
- Demo: Deploying a stateful app with OpenEBS in 30 seconds
- Product Roadmap 1.5
- Q&A
- Get started and Support

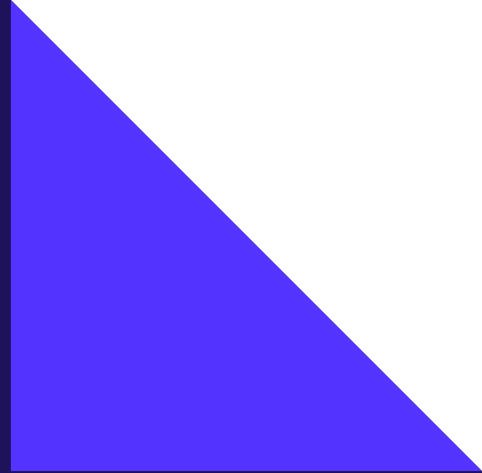
Interview with Kiran Mova



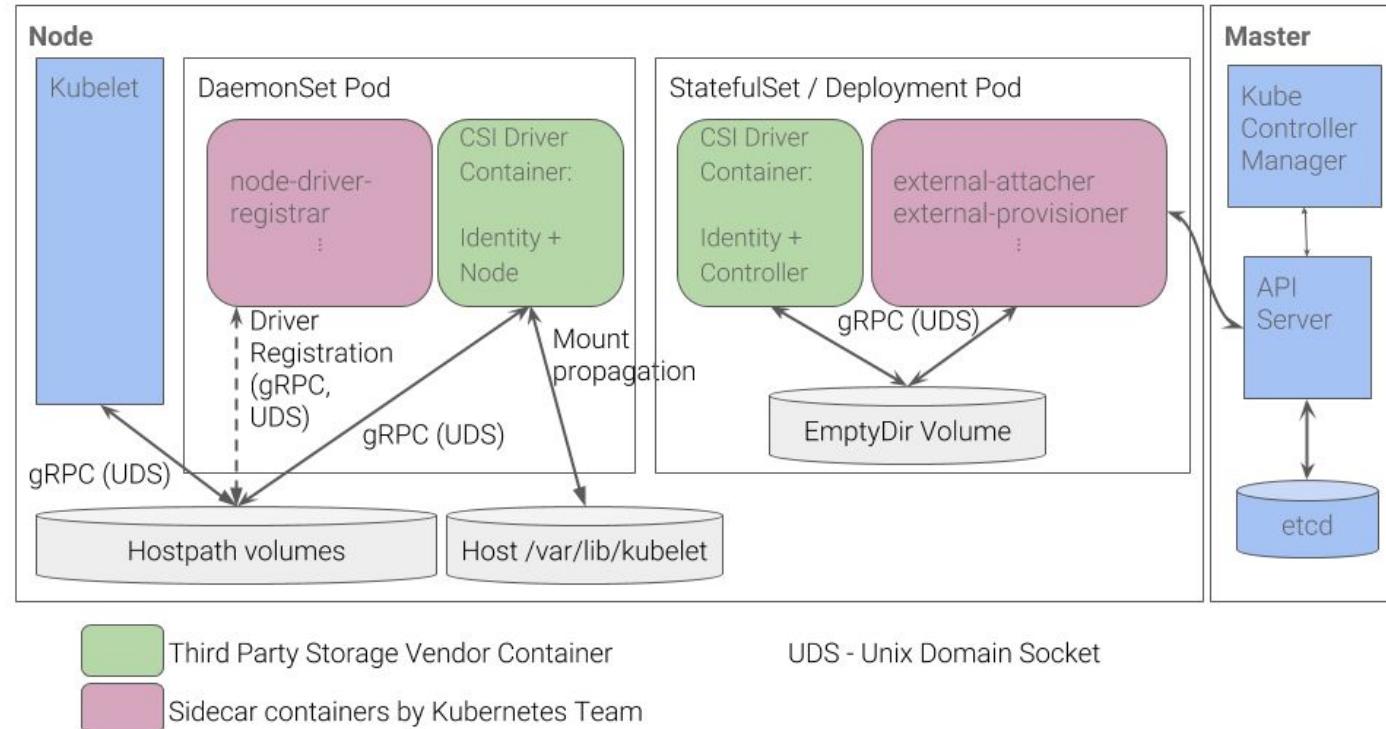
The problem with K8s stateful apps



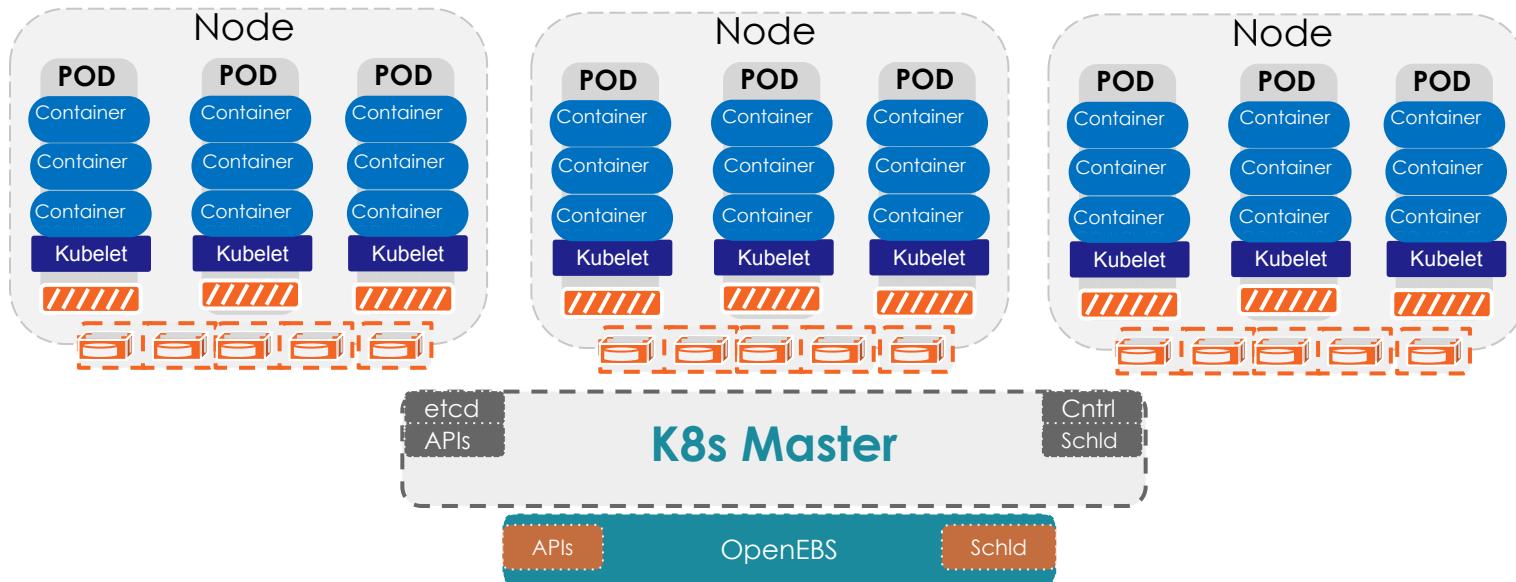
The problem with CSI & Kubernetes



Using CSI Driver in Kubernetes isn't easy



What's OpenEBS and Why Write It?



Why are people so interested right now?

Jan 2017	Initial prototype circulated for feedback with folks working on Rancher, Minio and DevOps personnel
Dec 2017	Launched pre-alpha version with already some initial set of users at KubeCon Austin
June 2018	Beta release of Jiva as well as initial bits on cStor
Dec 2018	KubeCon Seattle - Traction around storage started within Kubernetes. Got coaching to push into CNCF
May 2019	KubeCon Barcelona - Part of CNCF with 0.9 release. Users were already using in production
June 2019	1.0 release
Nov 2019	KubeCon San Diego - Featured on many presentations

Why contribute OpenEBS to the CNCF?

CLOUD NATIVE COMPUTING FOUNDATION About ▾ Projects ▾ Certification ▾ People ▾ Community ▾ Newsroom ▾ JOIN NOW 🔍

Container Attached Storage: A Primer

By cncf April 19, 2018 in Blog

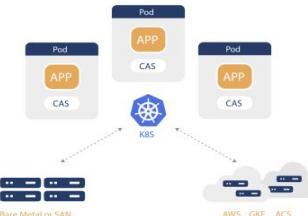
By Evan Powell, CEO of MayaData



Evan Powell is CEO of MayaData, the company behind OpenEBS, and previously founding CEO of Clarus Software (RVBD), Nexenta Systems – an early open storage leader, and StackStorm (BRCD). Evan and his team have written more about the drivers of Container Attached Storage, how OpenEBS and others are building it, more more at blog.openEBS.io. They welcome feedback and look forward to additional collaboration with the broader cloud-native ecosystem and specifically fellow CNCF members.

In this blog I seek to define briefly the emerging space of Container Attached Storage, explaining the what, the why and the how of this pattern.

What is Container Attached Storage?



CLOUD NATIVE COMPUTING FOUNDATION About ▾ Projects ▾ Certification ▾ People ▾ Community ▾ New

A year later – updating Container Attached Storage

By cncf May 16, 2019 in Blog

Guest post by Evan Powell, CEO at MayaData

Last year we published a blog with a good amount of coaching and feedback from the CNCF team that set out to define the Container Attached Storage (CAS) approach. As a reminder, we tend to include OpenEBS of course as well as solutions that have similar architectures such as the proprietary PortWrox and StorageOS into the CAS category.

<https://www.cncf.io/blog/2018/04/19/container-attached-storage-a-primer/>

Now that OpenEBS has been contributed to the CNCF as a Sandbox project as an open source example of the CAS approach (as of May 14th 2019), I thought it timely to update this overview of the category.

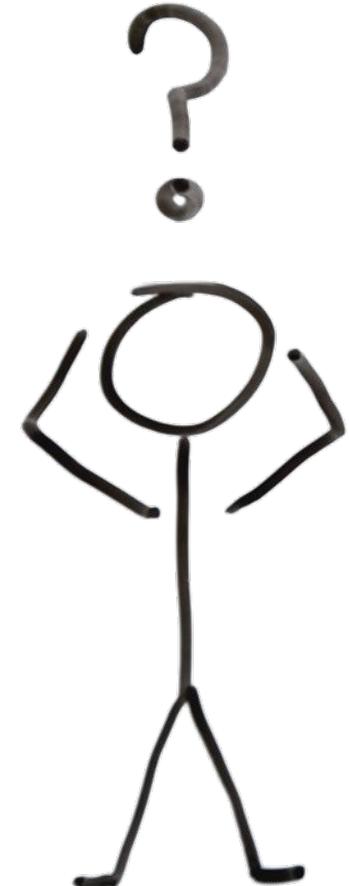
Last year's category-defining blog built on a vision of our approach that I had shared some years before at the Storage Developer Conference and which Jeffry Molanus, MayaData's CTO has discussed in more depth at FOSDEM (Free and Open source Software Developers' European Meeting) and elsewhere including demonstrating soon to be available software breaking the million IOPS barrier:



Protocol	Performance (IOPS)
NVM (UDEV)	~900
NBD	~100
iSCSI	~600
OpenEBS	~900 (spike to 940)

https://ftp.osuosl.org/pub/fosdem/2019/H.2214/openebs_breaking_million_iops_barrier.mp4

**Applications have
changed and someone
forgot to tell storage**



CAS - Container Attached Storage

OpenEBS Solves 2 Big Problems

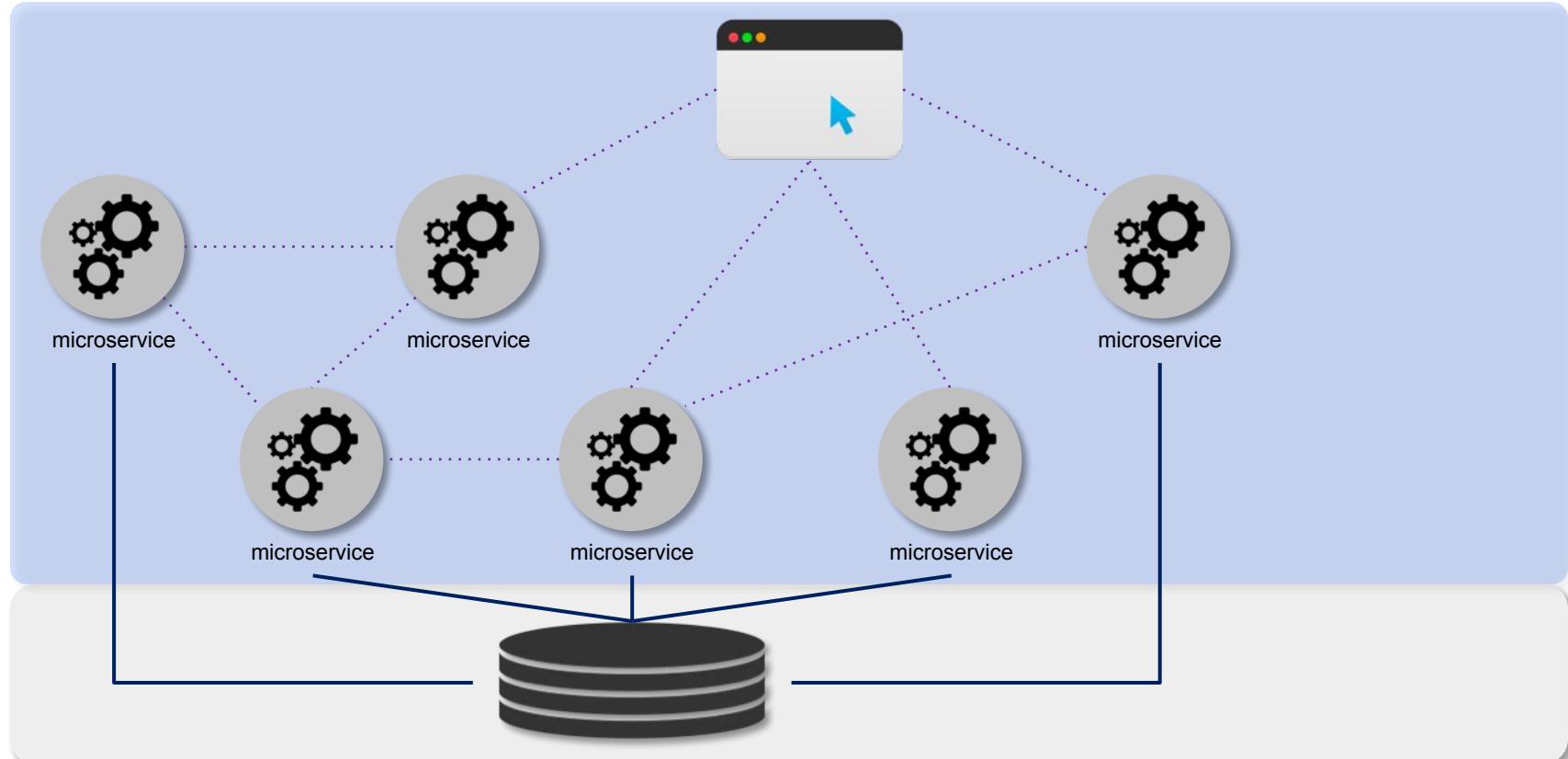


Deploying and managing stateful applications on Kubernetes is difficult

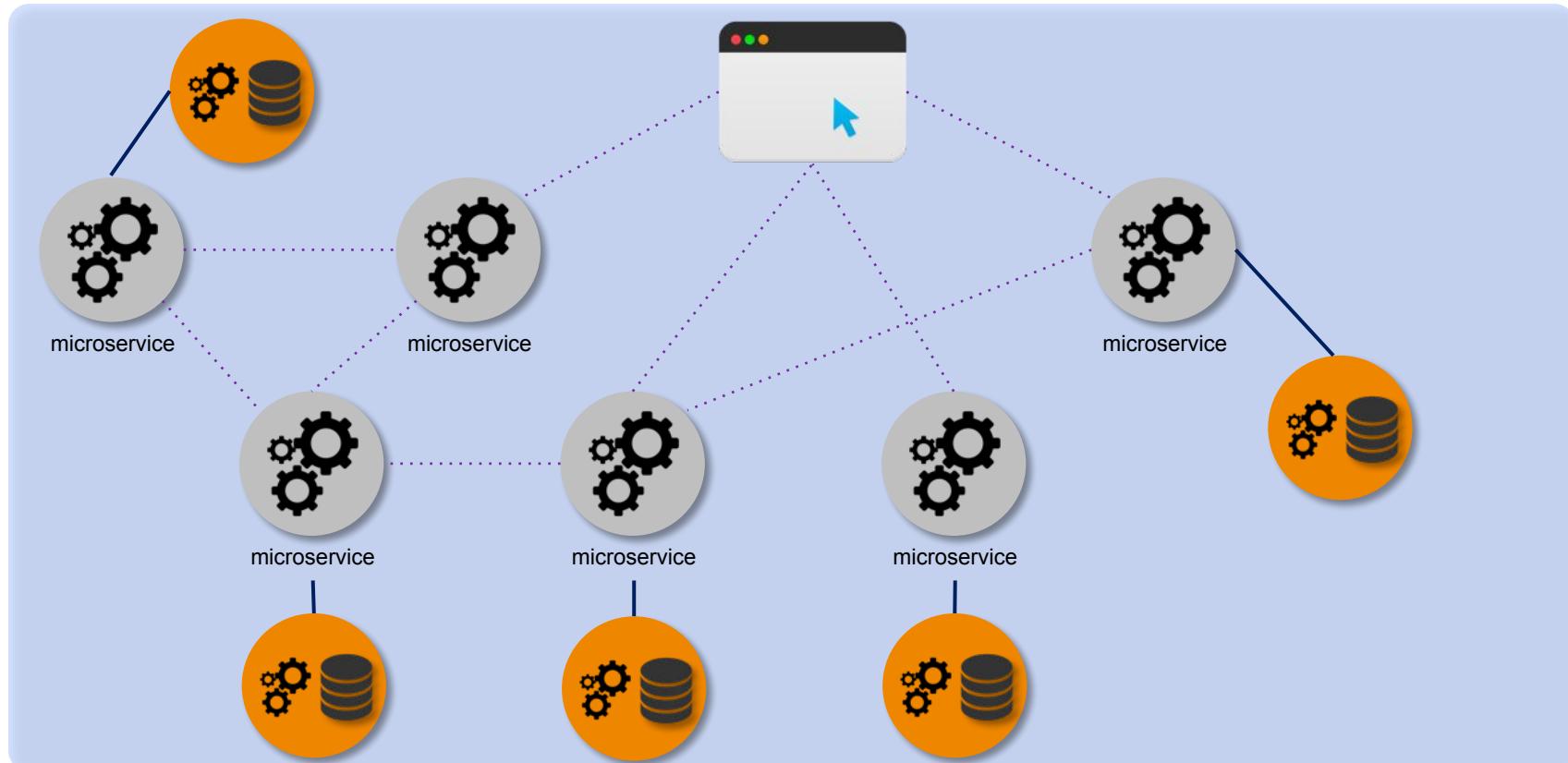


Stateful applications on Kubernetes are not agile because data has gravity

The Problem with Stateful Apps & Storage



Let's Keep it in Kubernetes



What is OpenEBS



OpenEBS is the most active Container Attached Storage project with the biggest user base and community



OpenEBS enables your DevOps teams to have their own storage policies for every workload

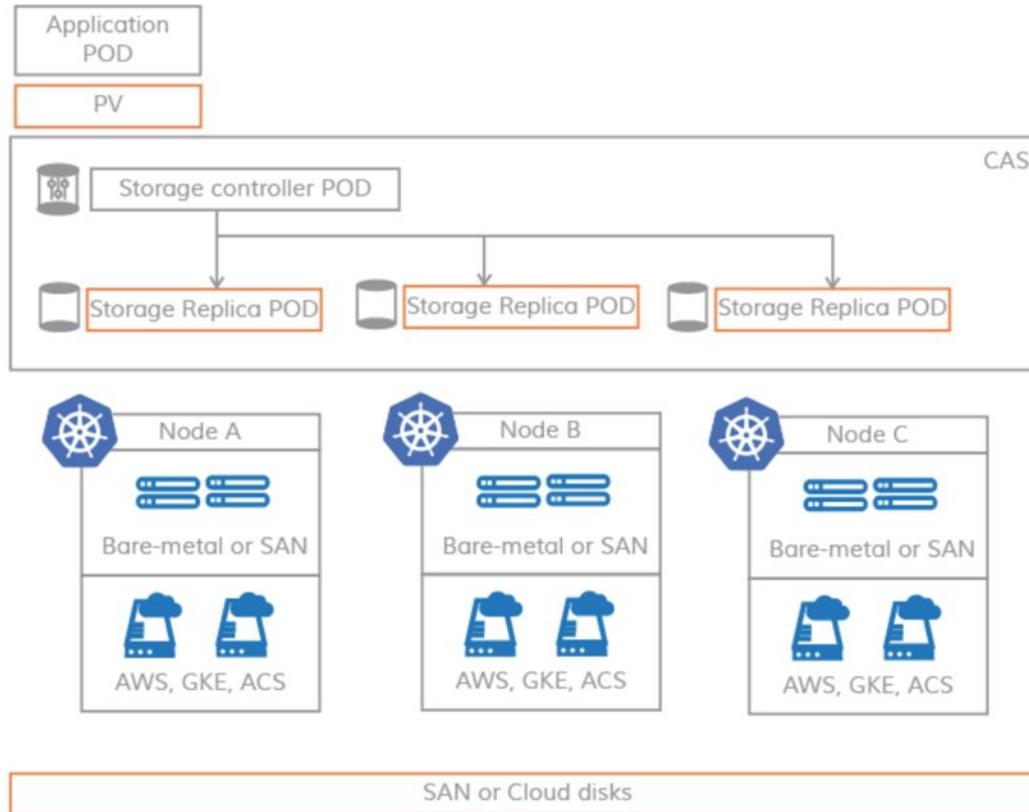


OpenEBS is not a Scale-out Storage System that requires a storage admin. If you know how to use K8s, you know how OpenEBS works



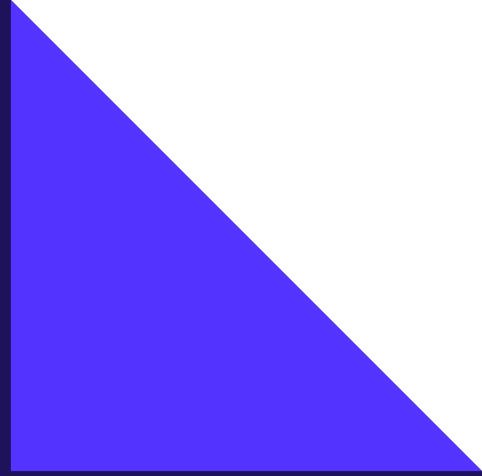
OpenEBS is truly Kubernetes native and 100% in userspace

OpenEBS cStor Architecture



- + Simple configuration
- + Teams are autonomous
- + Additive to underlying systems or cloud volumes or JBODs
- + Target Users:
 - **SRE**
 - **App Developer**
 - **Storage Admin**

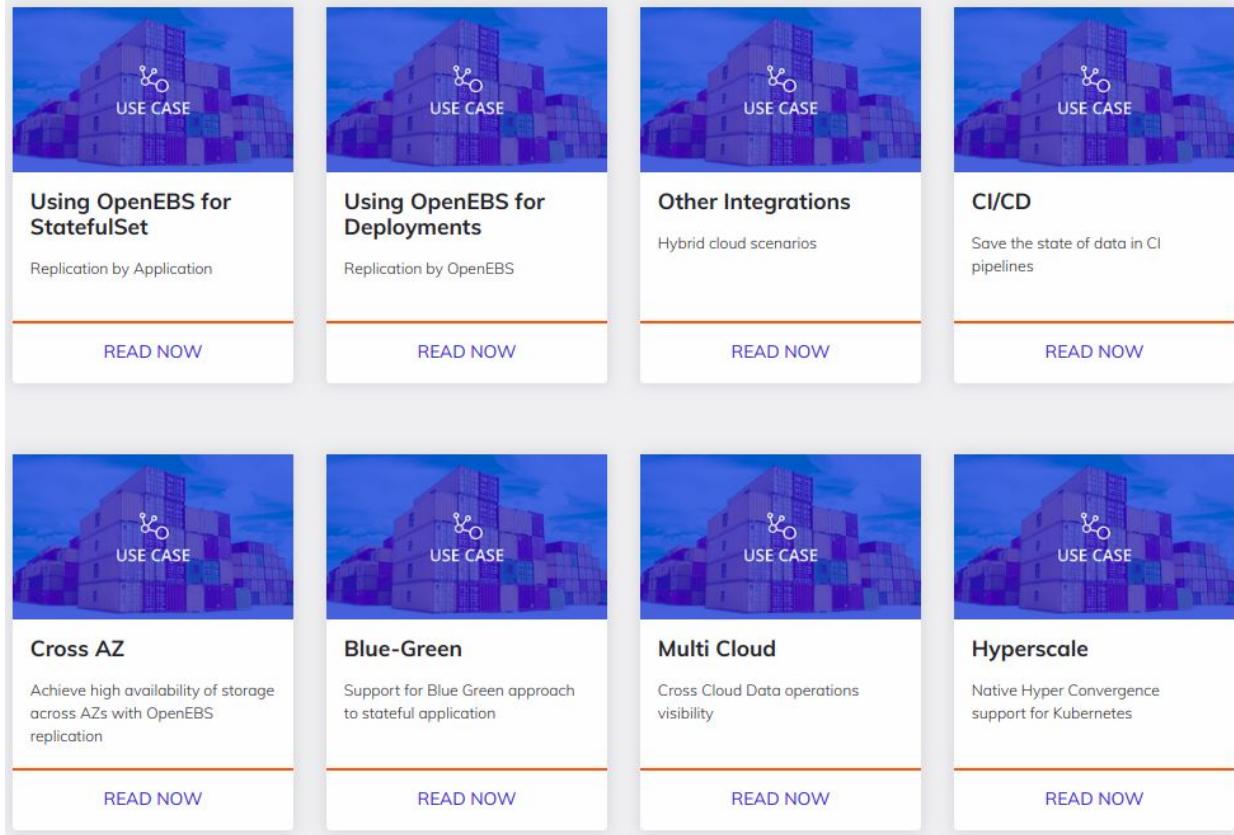
OpenEBS Use Cases



Example Use cases

Check our resources page
for more examples.

<https://openebs.io/>



Using OpenEBS for StatefulSet Replication by Application READ NOW	Using OpenEBS for Deployments Replication by OpenEBS READ NOW	Other Integrations Hybrid cloud scenarios READ NOW	CI/CD Save the state of data in CI pipelines READ NOW
Cross AZ Achieve high availability of storage across AZs with OpenEBS replication READ NOW	Blue-Green Support for Blue Green approach to stateful application READ NOW	Multi Cloud Cross Cloud Data operations visibility READ NOW	Hyperscale Native Hyper Convergence support for Kubernetes READ NOW

Demo

OpenEBS

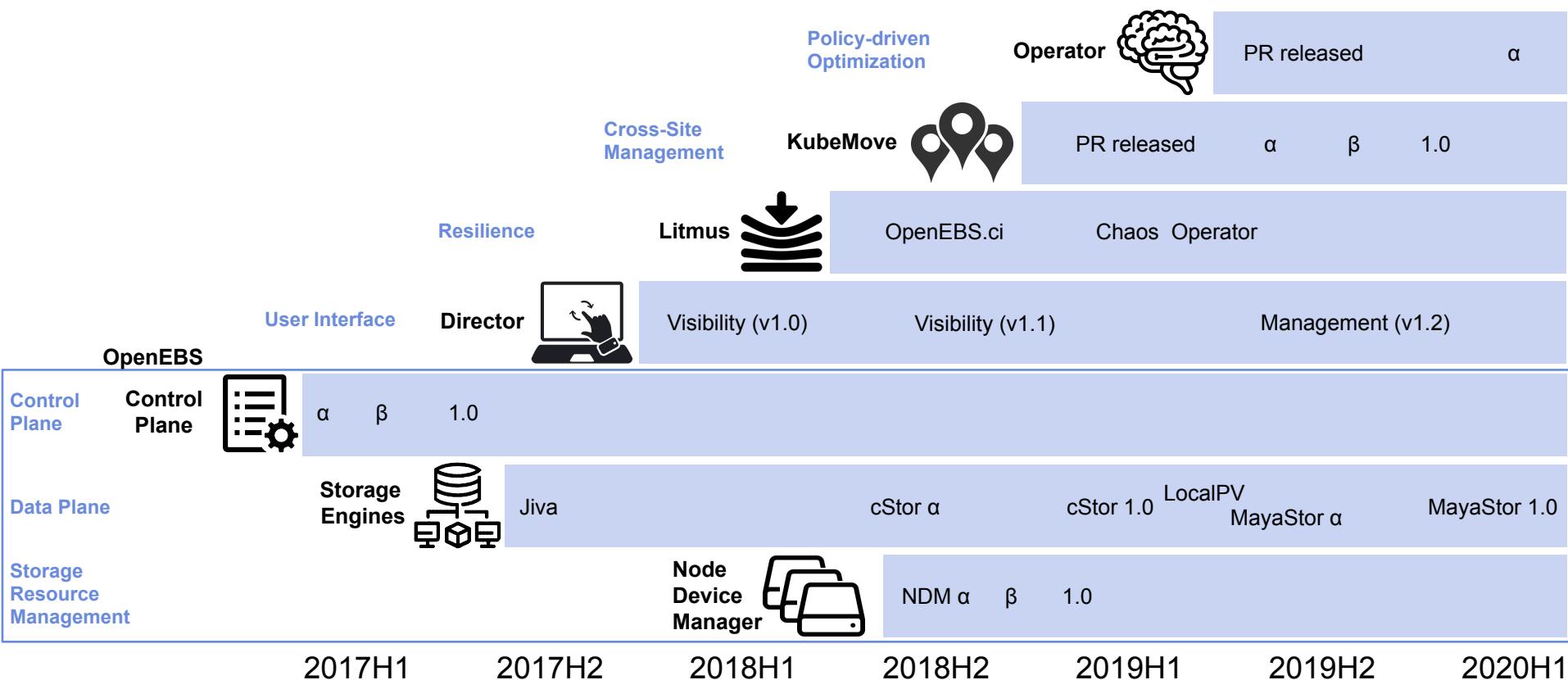
What's Coming?

Roadmap for 1.5 and after

- + Jiva
 - o CSI Driver (Alpha)
 - o Gotgt fixes and upstream
- + cStor
 - o CSI Driver (Beta)
- + LocalPV
 - o Block Volume Support
 - o PV Metrics
- + MayaStor
 - o Replication and rebuilds
- + NDM
 - o Device topology
 - o Improve NVMe detection
- + Operational:
 - o Kudo Operator
 - o Arm64 builds, adding cStor
 - o Increased E2E + Litmus
 - o Autoscale support for K8s

[OpenEBS Public Release Planning](#)

Roadmap for 1.5 and after



Be a part of OpenEBS

Find us on GitHub



<https://github.com/openebs/openebs>

Join our Slack group



<https://openebs.org/community>

Sign as an adopter



<http://bit.ly/OpenEBSAdopter>

Q & A

Need OpenEBS Enterprise Support?

[Visit Our Website to Learn More >](#)

Get Started - Go to mayadata.io

The screenshot shows the MayaData homepage. At the top, there's a navigation bar with links for Product, Open Source, Company, Partners, Resources, Blog, Pricing, Login, and a prominent blue "Free Trial" button. A red arrow points to the "Free Trial" button. Below the navigation, a large headline reads: "Your complete solution for building and running stateful applications on Kubernetes". To the right of the headline is a 3D-style diagram illustrating a storage architecture. It features a central white plane representing a cluster or cloud environment. On this plane, there are several storage units represented by blue and white blocky icons. A blue cloud icon with a gear symbol is positioned above the plane, connected to one of the storage units by a dashed line. Arrows indicate data flow between the storage units and the cloud. At the bottom left, there's a "READ MORE" button. In the bottom right corner of the main content area, there are two buttons: "OpenEBS" and "Get Commercial support for OpenEBS REQUEST DEMO". A red arrow points to the "REQUEST DEMO" button. At the very bottom of the page, a white box contains a paragraph about data agility: "MayaData drives data agility. We believe that the best way to deliver storage and related services to containerized and cloud-native environments is with containerized and cloud-native architectures. This approach results in far greater "data agility" than prior methods."

MayaData

Product Open Source Company Partners Resources Blog Pricing Login Free Trial

Your complete solution for building and running stateful applications on Kubernetes

MayaData OpenEBS Enterprise Platform reduces the risk and increases the agility of running stateful applications on Kubernetes. Your workloads can have storage provisioned, backed-up, monitored, logged, managed, tested, and even migrated across clusters and clouds via CLI, API and an intuitive GUI.

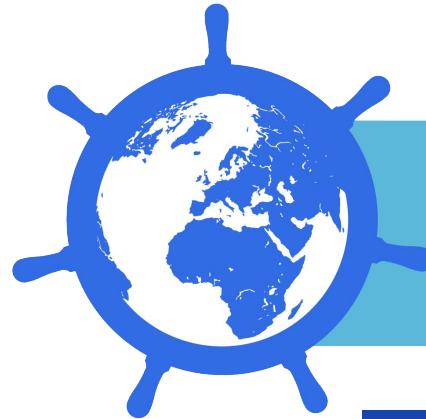
Your business with MayaData OpenEBS Enterprise Platform realises faster delivery cycles, no vendor lock-in and reduced TCO.

READ MORE

OpenEBS

Get Commercial support for OpenEBS REQUEST DEMO

MayaData drives data agility. We believe that the best way to deliver storage and related services to containerized and cloud-native environments is with containerized and cloud-native architectures. This approach results in far greater "data agility" than prior methods.



Kubernetes Forums

Kubernetes Forum Seoul

December 9, 2019
Seoul, Korea

[LEARN MORE](#)

Register!

Kubernetes Forum Sydney

December 12 – 13, 2019
Sydney, Australia

[LEARN MORE](#)

Register!



OpenEBS



Thank You



OpenEBS



Thank You

