



ChubaoFS 线上宣讲

主办单位：



中国科学院软件研究所
Institute of Software Chinese Academy of Sciences



openEuler



ChubaoFS（储宝）是分布式文件系统与对象存储融合的存储项目

- 为云原生应用提供计算与存储分离的持久化存储解决方案
- 论文被数据库国际会议SIGMOD 2019 接收

ChubaoFS

A cloud native- storage platform that provides both POSIX-compliant and S3-compatible interfaces

Used in production for more than 3000 applications/services on JD's container platform

Publication

- CFS: A Distributed File System for Large Scale Container Platforms. SIGMOD '19, June 30-July 5, 2019, Amsterdam, Netherlands. <https://dl.acm.org/citation.cfm?doid=3299869.3314046>

Easy to use, deploy and maintain

Open sourced: <https://github.com/chubaofs/chubaofs>

ChubaoFS is a CNCF Sandbox Project

KubeCon + CloudNativeCon Amsterdam | TBD | Don't Miss Out | [Learn more](#)



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<https://www.cncf.io/sandbox-projects/>



Dragonfly

Image Distribution



Virtual Kubelet

Nodeless



KubeEdge

Edge



Brigade

Scripting



Network Service Mesh

Networking



OpenTelemetry

Telemetry Specification



OpenEBS

Storage



Thanos

Monitoring



Flux

GitOps



in-toto

Security



Strimzi

Kafka Operator



KubeVirt

VM Operator



Longhorn

Storage



ChubaoFS

Storage



KEDA

Event-driven autoscaling



Service Mesh Interface

Service Mesh



How ChubaoFS Ecosystem building?

- Kubernetes
 - Most often deployed on Kubernetes
- Harbor (just graduated)
 - Provides a backend storage solution for Harbor based image center
 - Harbor HA solution
- Helm (popular project)
 - Support Helm 2 as the package manager of ChubaoFS
- Prometheus(second graduated after k8s)
 - Default monitoring system in ChubaoFS
- Rook
 - As a storage orchestrator of ChubaoFS for Kubernetes (WIP)

ChubaoFS – Deployment & Orchestration

- Kubernetes CSI driver (v1.0.0)
 - github.com/chubaofs/chubaofs-csi
- Docker compose
 - Create and start resource manager, data & metadata subsystems with a single command
 - Try it! <https://chubaofs.readthedocs.io/en/latest/user-guide/docker.html>
- Integration with Helm 2/3
- Rook (Current Projects)
<https://isrc.iscas.ac.cn/summer2020/#/organisations/chubao>

Use Cases

ChubaoFS Served more than 3000 applicants and services at JD, such as:



- Click Stream service
- Video Clips
- Advertising
- Searching
- AI platform and services
- Order system
- Promotion system
- Monitoring system
- GroupBuy service
-

ChubaoFS - Production Adopters (External)



ChubaoFS - Community

Mailing list: `chubaofs-maintainers@groups.io`

Website: <http://chubao.io/>

Twitter: @ChubaoFS

Slack: `chubaofs.slack.com`

Issue tracker: Use the [GitHub Issue tracker](#) to file bugs and feature request

ChubaoFS Summer 2020 tasks:

<https://isrc.iscas.ac.cn/summer2020/#/organisations/chubao>

项目ID: 2040313

基于DataFusion和ChubaoFS
的存储计算分离



项目难度：高
ChubaoFS (CNCF sandbox)

项目ID: 2040315

分布式文件系统ChubaoFS测试
框架



项目难度：中
ChubaoFS (CNCF sandbox)

项目ID: 2040314

基于DataFusion和ChubaoDB
的存储计算分离



项目难度：高
ChubaoFS (CNCF sandbox)

项目ID: 2040316

基于Raft和Rocksdb实现一个
简单的分布式Key-Value数据库



项目难度：中
ChubaoFS (CNCF sandbox)

项目ID: 2040318

分布式文件系统ChubaoFS命令
行管理工具



项目难度：中
ChubaoFS (CNCF sandbox)

项目ID: 2040319

ChubaoFS的高级检索引擎
ChubaoDB集群调度



项目难度：高
ChubaoFS (CNCF sandbox)

项目ID: 2040317

ChubaoFS项目文档重构



项目难度：中
ChubaoFS (CNCF sandbox)

项目ID: 2040320

基于Rook在Kubernetes集群中
部署ChubaoFS Console



项目难度：高
ChubaoFS (CNCF sandbox)

项目ID: 2040322

基于Rook在Kubernetes集群中
部署ChubaoFS



项目难度：高
ChubaoFS (CNCF sandbox)

项目ID: 2040321

基于Rook在Kubernetes集群中
部署ChubaoFS CSI



项目难度：高
ChubaoFS (CNCF sandbox)

项目ID: 2040323

基于Rook在Kubernetes集群中
部署ChubaoFS Monitor



项目难度：高
ChubaoFS (CNCF sandbox)

问答环节

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感谢



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