

Seven Reasons Why Cloudian is the Ideal Storage for Kubernetes



How Cloudian Private Cloud Storage Meets the Needs of Modern Applications

Why Kubernetes Demands a New Approach

Containers introduce new challenges for storage. Because containers were designed for the cloud, they are made to be transient and ephemeral. As a result, they break many of the rules associated with traditional storage access.

To overcome these limitations, some container storage solutions manage storage access with a middleware layer between the applications and traditional SAN/NAS storage. But this added layer has a cost, either in the form of added complexity or limited scalability.

A simpler solution would be to provide cloud-like storage access, similar to what a Kubernetes application would see in the public cloud. In other words, to have storage in your data center that acts like storage in the cloud.

Cloud-Native Storage for Your Data Center

Cloudian is cloud-native S3-compatible storage. It runs in your data center and uses the S3 API plus other cloud-technology elements to provide cloud-like data access. From the application point of view, it is cloud storage.

Cloudian now makes it easy to use private cloud storage with your Kubernetes applications. Cloudian's Kubernetes S3 Operator is a lightweight Operator using S3 APIs that allows applications to dynamically or statically provision object storage. The result is self-service storage access in a cloud-like infrastructure.

Here are seven reasons why Cloudian is the ideal storage environment for your Kubernetes applications:

OVERVIEW

Solution In Brief

Native S3 API storage in your data center, plus a lightweight Operator for connectivity. Cloud-like storage access for Kubernetes applications.

Solution Elements

- Cloudian HyperStore S3-compatible storage (either software-defined-storage or appliances)
- Cloudian Kubernetes S3 Operator

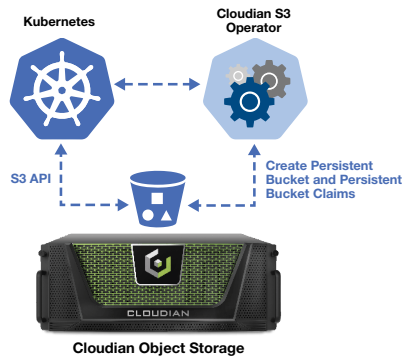
Benefits

- **Self-service:** Quickly provision storage using a lightweight operator
- **Portable:** S3-API driven on native S3 API platform; no gateways or translation layer
- **Multi-tenant:** Isolated namespaces for developer and production workloads
- **Scalable:** Modular scalability to an exabyte
- **Secure:** Verified, with certifications; WORM capability to protect data from ransomware
- **Lowest TCO:** 60% or more TCO savings vs other traditional storage or public cloud storage

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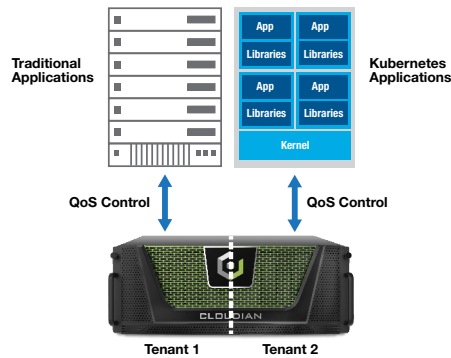
1 S3 API for Application Portability

Designed from the ground up as a native-S3 API platform, Cloudian offers the industry's most complete S3 API compatibility. This eliminates lock-in and enhances application portability. The Cloudian S3 Operator gives developers self-serve access to storage using the standard Kubernetes Persistent Volume (PV) and Persistent Volume Claim (PVC) methodology to provision assets.



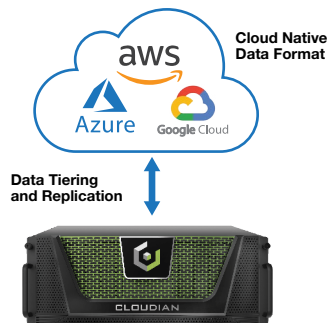
2 Multi-tenancy for Shared Storage

Share your private cloud among multiple use cases and operating environments. Cloudian's secure multi-tenancy lets you create separate namespaces and self-serve management environments for development and production users. Each tenant's environment is isolated, with data invisible to other tenants. Performance can be managed, too, with integrated quality of service (QoS) controls.



3 Hybrid Cloud-Enabled

Bring your on-prem and cloud worlds together with hybrid-cloud configurations. Replicate or migrate data to AWS, GCP, or Azure using Cloudian's integrated public cloud data management tools. Data moved to the cloud is directly accessible to cloud-based applications because it is always stored in the cloud's native format. No Cloudian intervention is required to access that data. Manage data among clouds, too. Make data accessible wherever it is needed — whether on-prem or in AWS, GCP or Azure — without the complexity of a separate management layer.



“You don’t need to recreate a cloud-like experience by cobbling a Kubernetes translation layer onto traditional storage. Instead, use storage, like Cloudian, that was designed to deliver a cloud experience from the start.”

Scott Sinclair, ESG



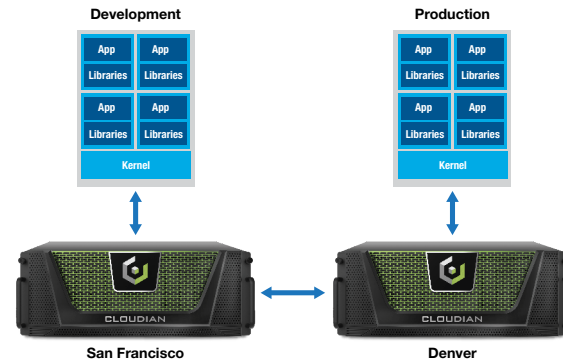
“Building on its market leadership, Cloudian is bringing all the benefits of true enterprise-level object storage to Kubernetes users, along with the agility and portability that are key to developing microservices.”

Seow Lim
VP of Architecture and Platform
phoenixNAP

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4 Span the Globe with Geo-Distribution

Keep performance up and latency down by giving applications access to local storage at any location. This can be a challenge with some storage architectures, sometimes requiring additional management layers. Cloudian solves this problem with a distributed architecture. With a single, scalable cluster you can manage data across sites using built-in tools. Integrated data replication and data striping tools put data where you need it. Cloudian HyperIQ observability software lets you see the data across all sites and how it is being accessed.



5 Hardened and Production-Ready

Cloudian's award-winning object and file storage is proven with over an exabyte of data under management and millions of users. Many of the world's largest companies, government agencies, and service providers rely on Cloudian, with deployments ranging in size from a single site to dozens of sites operating as a private cloud. Start small and grow seamlessly with the modular, peer-to-peer clustered architecture.

6 Verified Security and Data Immutability

For data types that have strict security or compliance requirements, Cloudian offers the broadest array of security certifications in object storage. In addition to FIPS and Common Criteria certifications, Cloudian is certified compliant with SEC Rule 17a-4(f), FINRA Rule 4511(c), and CFTC 17 CFR § 1.31(c)-(d). And Cloudian offers S3 API-controlled data immutability (WORM), certified to meet regulatory requirements for non-rewritable media.



7 Lowest TCO: Saves 60% or more vs Traditional or Public Cloud Storage

Cloudian has the lowest TCO of any enterprise storage type, saving you 60% or more vs. traditional SAN/NAS or public cloud storage. Built on industry-standard servers with efficient, highly-dense packaging, Cloudian saves on space and power. And with modular scalability, it is far easier to manage at scale than other storage types. Choose from either appliances or software-defined-storage to support your preferred deployment type.

Free Trial cloudian.com/free-trial/

Contact a Cloudian storage specialist today for a free trial in your data center. See how easy it is to provide the ideal environment for your Kubernetes applications, with cloud-like storage access.