

# Optimize the Economics of Data Storage and Management for Hybrid Multi-Cloud and Kubernetes

The evolution of hybrid / multi-cloud environments combined with the growth of data volume at an unprecedented rate has made managing and storing data a critical priority. Hammerspace and Cloudian address these needs with a joint solution that provides scale, cost, and automation benefits, without sacrificing the high-performance of primary storage.

## Solution Highlights

- **Geo-spanning Global Namespace** for Active/Active access to data across hybrid cloud
- **Non-disruptive, file-granular live data mobility** tiers across sites and services on-demand or by policy
- **Cost-optimized object storage** with costs under \$.01 per GB per month.
- **Enterprise file data services** protects data
- **Scalable** across 16 sites
- **Deploy across clouds and on-premises** without compromising performance
- **Full featured NFS / SMB protocol stack** supports any NAS or cloud file service
- **Flexible, policy-based** storage control & visibility
- **Data protection and DR-as-a-Service** by policy
- **Native Kubernetes integration** with CSI driver

Hammerspace's intelligent data management automatically and non-disruptively moves data across the hybrid multi-cloud to improve data accessibility, ensure cost efficiency and meet user-defined business objectives. With unified support for both File and Block interfaces in Kubernetes, Hammerspace enables the full spectrum of cloud-native applications to benefit from its broad capabilities of data management services.

Cloudian's HyperStore storage software delivers new levels of technical and economic efficiencies – dramatically reducing storage costs – and is an ideal on-prem platform for capacity-intensive data. With unmatched data durability, Cloudian HyperStore flexibly scales capacity as needed to support data growth – from terabytes to hundreds of petabytes, across all locations, including public cloud.

## Active-active Geo-spanning Namespace

Hammerspace global namespace virtualizes data to present a unified view of data to application workloads across heterogeneous storage resources. Global data visibility and accessibility make it fast and easy to access data across sites. Data is transferred on-demand when needed and by policy, if desired. With a locally managed namespace available on each site, performance of the data and metadata is maintained without compromise while making the data available across distance.

By managing metadata separately from data, it becomes possible to make unstructured data appear virtually anywhere without copying it. Data virtualization is key to overcoming the challenge of storage silos, making data appear across the hybrid cloud through an active-active geo-spanning namespace. This makes heterogeneous data stores such as the Cloudian HyperStore simultaneously available to all applications without requiring any changes or disruption to application workloads.

## Hammerspace and Cloudian

Hammerspace works on any storage or cloud service that speaks NFS, block, or S3 object; supporting multi-vendor environments with support for enterprise data services such as snapshots and replication. Cloudian's object storage technology with 100% native S3 API is a perfect fit for storing petabytes of capacity across sites, with Hammerspace moving only applications' active data into more expensive NAS or block options, as needed.

## Enterprise Data Services for All Your Data

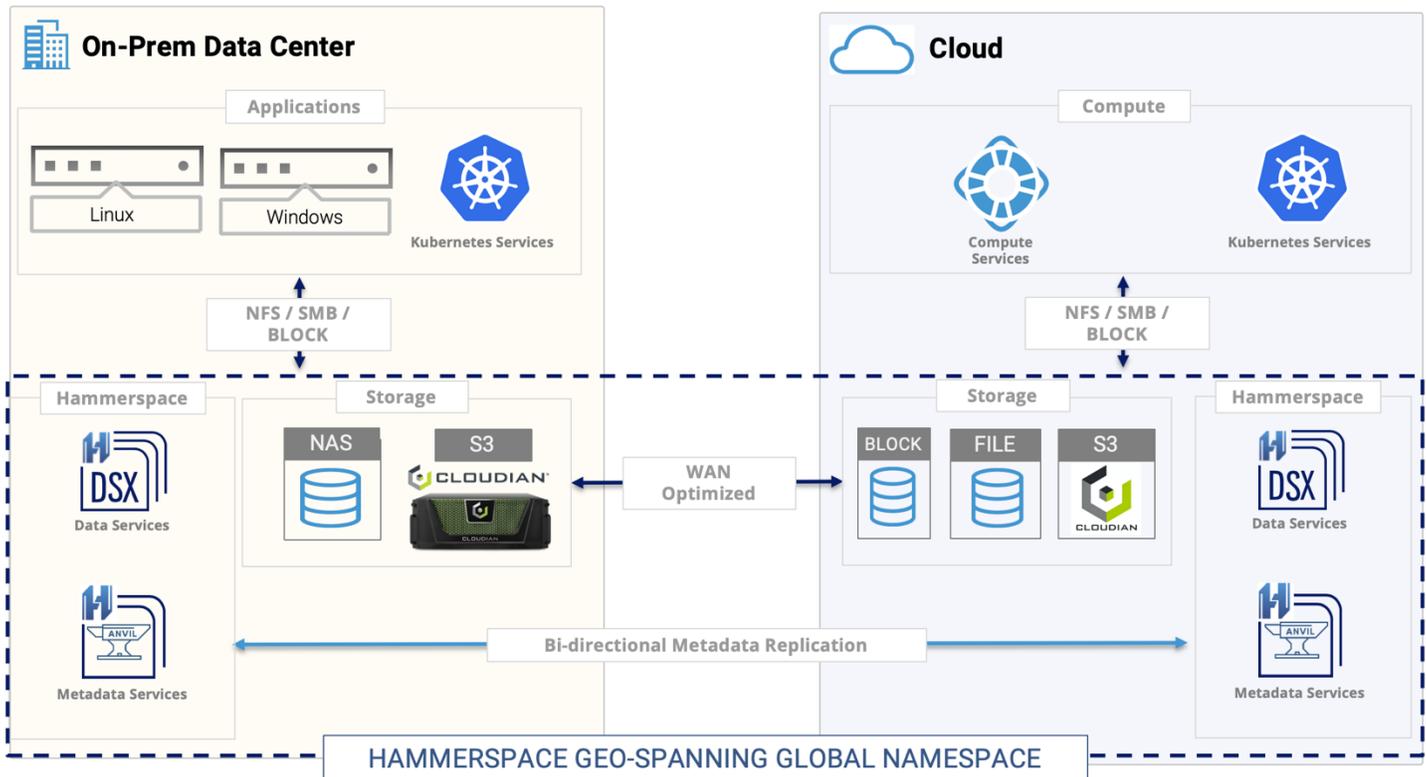
Hammerspace can use any storage while providing global enterprise data services that span clouds and clusters. Enterprise data services like global snapshots can be automated by setting objectives, which means that data can be easily protected and scaled for everything from disaster recovery to cloud bursting; meeting sudden changes in SLAs.

- **Disaster-Recovery-as-a-Service** – Active-active DR across hybrid cloud can be configured with a simple click. With Hammerspace's global namespace, data is automatically orchestrated, across storage and clouds with an RTO and RPO of nearly ZERO.
- **Data Protection** – Protect data across the hybrid cloud with enterprise data services like global snapshots, transparent recovery, disaster recovery, data replication, and data archives.
- **Tier Snapshot Backups to Cloud Storage** – Backups can be managed with scheduled snapshots pushed into object storage.
- **Metadata Reporting** – Generate custom reports and collections based on enriched extensible metadata from anywhere in the namespace

### Manage Data, Not Storage with Hammerspace

Customers want the freedom to manage application data without worrying about which storage silo it sits on. The legacy approach of copying or moving data between silos doesn't scale in a hybrid cloud environment. With Hammerspace, all application data is available, but only the files necessary are moved to maintain efficiency while keeping transfer costs low with WAN-optimized global deduplication and compression. When combined with live data mobility, applications non-disruptively move and run anywhere even during read/write to an active file. With support for standard storage protocols (NFS, SMB) application data is available to any site across the hybrid cloud making it easy to move applications.

Hammerspace's machine learning engine adds intelligence to the decision making, continuously optimizing data management between clouds and data centers based on telemetry collected from applications and the infrastructure – balancing cost and performance.



### Cloudian HyperStore Object Storage

Cloudian's HyperStore exabyte-scale object storage platform provides an elegant, cost-effective, hybrid-cloud solution for capacity intensive storage and archive. Designed to meet the need for large, secure, highly resilient and flexible storage infrastructure at a low cost, HyperStore seamlessly stores, moves and protects objects and files across on-prem and cloud locations.

Cloudian clusters upgrade non-disruptively with newer, higher capacity nodes, eliminating costly overprovisioning. HyperStore's automatic data verification and self-healing functions provide reliability and resilience against hardware failures, while its data encryption, both in-flight and at rest, safeguard data against threats of deletion or theft via malware.

### Learn More

Contact your Hammerspace and Cloudian sales representatives to learn more about this solution and how you can benefit.