LucidLink & Cloudian

EXTENDING OBJECT STORAGE BEYOND BACKUP AND ARCHIVE

By combining Cloudian object storage with LucidLink Filespaces, organizations gain a high-performance file service designed for distributed workloads.

Challenge: Getting Instant Access to Archived Data

LucidLink enables Cloudian to be deployed to file-based, tier 2 storage applications. Moving beyond backup, archive, and refactored native S3 applications, the combined solution extends Cloudian to general use storage for servers and even user directories.

> High-performance file access to object storage

> Reduced infrastructure costs

> Streamed data, on-demand

> Improved scalability, reliability & data durability

> Sophisticated policy based snapshots

High-performance File Access

When backed by HyperStore, Filespaces helps extend Cloudian's versatility in relation to production workloads. LucidLink Filespaces provides a file interface to HyperStore that streams data securely, and eliminates the need to completely download and synchronize. Both users and applications can connect to the same global name-space, using it as if it were a local, shared volume. By dramatically increasing metadata efficiency and streaming file data on-demand, file access times are reduced significantly. The combined solution provides fast, remote access to large files and terabytes to petabytes of data, from globally distributed locations.

Infrastructure Costs

HyperStore provides a cost-effective and scalable on-prem storage solution. Cloudian enables customers to grow progressively and allocate more storage and scale limitlessly. The Cloudian solution, enables organizations to take advantage of the technology without incurring a large infrastructure commitment. LucidLink is a software solution that does not require additional infrastructure such as gateway appliances or complex networking making it extremely easy and cost-effective to deploy.

Stream Data, On-Demand

LucidLink's data layout together with our streaming technology dramatically improves performance for file-based applications. Even remote access and big file access applications can be easily handled with a LucidLink + Hyperstore Solution.

Scalability, Reliability & Data Durability (object storage)

Cloudian easily delivers additional storage capacity on-demand, which in turn minimizes the likelihood of incurring additional costs, over provisioning or missing out on critical opportunities while waiting on storage resources. It is able to hold large amounts of unstructured data such as audio, video, emails, health records, and documents.

Sophisticated Snapshots

Snapshots allow users to restore prior versions of either individual files or revert the entire filespace to an earlier point in time. Snapshots are applied instantly without incurring any operational overhead and since only the modifications are captured they are extremely efficient. This feature is particularly useful for backup purposes and as a defense against ransomware attacks.

Technology Trends

As organizations move toward a complete digital transformation, they aim to adopt storage technologies that are agile, easy to manage, scalable, secure and cost-efficient. Data is the new basis of competitive advantage.

As cloud resources are increasingly adopted, workloads run in a distributed manner from the edge, data center, and cloud locations, demanding instant access to data in more places than ever before. However, unlike compute resources, data is not easy to move around. LucidLink solves this problem by providing file-level access to object storage while mitigating latency issues created by distance.
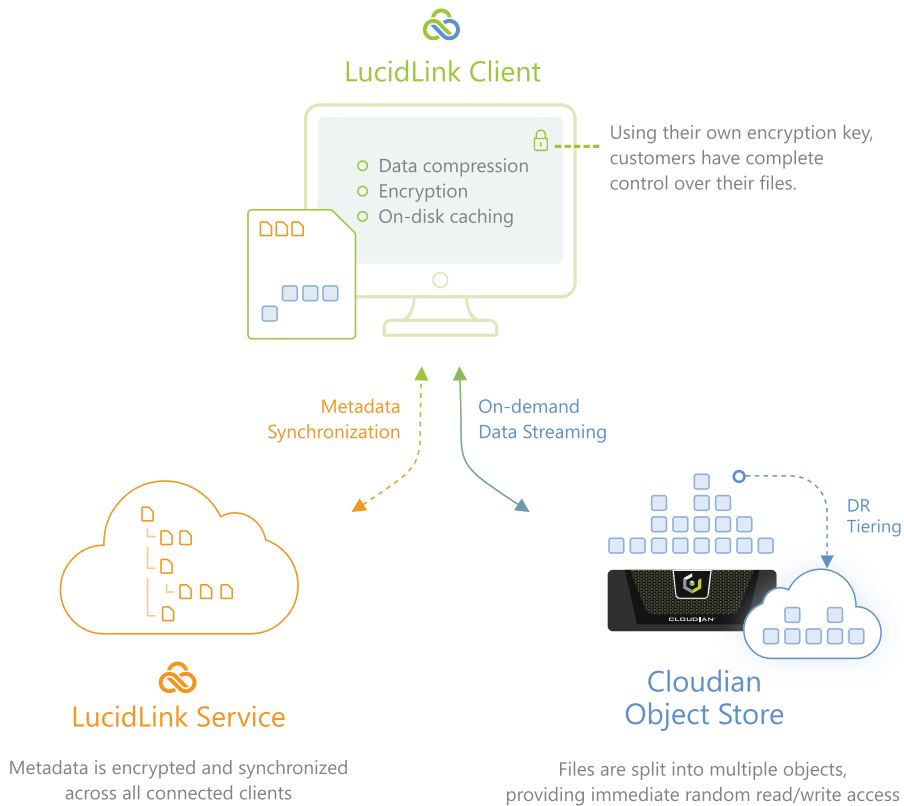
LucidLink & Cloudian Solution

The LucidLink-Cloudian solution enables users and applications to securely access files from scalable object storage for distributed workloads that require high-performance.

Cloudian's storage capabilities are designed to expand use cases for data-heavy workloads with the ability to scale up as usage expands.

LucidLink provides high-performance file access to HyperStore extending its usefulness to server production workloads. Utilizing concepts from distributed databases and cloud gateways, LucidLink created a cloud-native file system on top of object storage.

Split-Plane Architecture

LucidLink Filespaces is a high-performance cloud file service built specifically for object storage.

LucidLink Client

- Data compression
- Encryption
- On-disk caching

Using their own encryption key, customers have complete control over their files.

Metadata Synchronization

On-demand Data Streaming

DR Tiering

LucidLink Service

Metadata is encrypted and synchronized across all connected clients

Cloudian Object Store

Files are split into multiple objects, providing immediate random read/write access

Use Cases

LucidLink enables customers to deploy Cloudian HyperStore beyond the traditional use cases of backup and archive, such as:

Active Archive
Data stored in massively scalable & cost-effective HyperStore is instantly available to any device with the LucidLink client installed. This enables customers to move their valuable data into an economical capacity storage tier while maintaining quick access to random files.

File Server Extension
The LucidLink-Cloudian solution offers the ability to extend or even replace on-prem network shares and file servers. Keep your server and network infrastructure in place and simply expand the disk to highly scalable Cloudian HyperStore.

Remote Access from Anywhere
LucidLink provides seamless access to data in a single global namespace, available from anywhere. Organizations with remote workloads can quickly connect to data sets allowing secure, high-performance access.

Service Providers
MSP's and CSP's can offer their customers a mount point allowing them direct access to remote storage. It represents additional use cases for HyperStore, driving capacity consumption and is a value-added service offering for the MSP.