LUCIDLINK FILESPACES

LucidLink Filespaces

High-performance Cloud File Service for Distributed Workloads

LucidLink Filespaces™ is a high-performance cloud file system for distributed workloads. The SaaS offering works with any cloud storage, providing streaming access to data as if it were local disk. Using LucidLink, organizations gain flexibility, convenience, and substantial cost savings, with the assurance of sophisticated "zero-knowledge", end-to-end encryption that protects data at rest and in-flight.

Bring Your Own Storage
Filespaces provides a file interface to cloud storage – streaming data securely and eliminating the need to download and synchronize. Both users and applications can connect to the same single namespace and use it natively as if it was a local, shared volume.

Any Cloud, Public or Private
LucidLink works with object storage provider, including public clouds, on-prem object stores or hybrid environments. It supports all major operating systems including Linux, Windows, and macOS.

Stream Data, On-Demand
Files are presented as if they are stored locally, streaming only the data that is needed as required. Servers and applications have instant access to large sets of data, even over long distances, without consuming local storage.

End-to-End File Encryption
Using their own encryption key, customers have complete control over their files. Neither LucidLink nor the storage provider can access the data.

Easy, Instant Access to Cloud
Customers can use a LucidLink mount point to make any software immediately cloud-ready, backing up to object storage. Customers can use this solution as they would typically use NAS.

LucidLink Benefits

- Gain instant access to data, in the cloud, from the edge
- Increase remote capabilities
- Integrate legacy applications with cloud storage
- Utilize shared persistent storage for VMs, applications, and containers
- Comply with data security, device, and sovereignty mandates

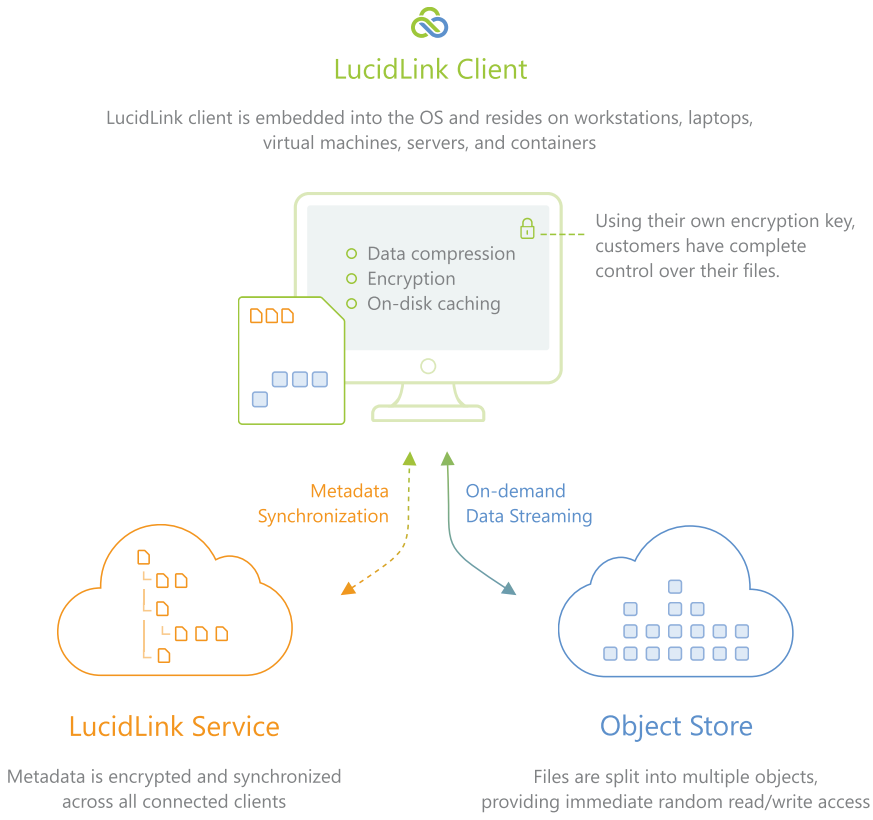
Key Features

Snapshot Support
LucidLink, based on advanced log-structured design, allows the entire filespace to be instantly preserved at any point in time without incurring any performance overhead. These snapshots allow users to restore prior versions of either individual files or revert the entire filespace to an earlier point. In addition, snapshots do not require a complete copy of all the data, but only what's changed between two snapshots, resulting in very efficient space utilization. This feature is particularly useful for backup purposes and as a defense against ransomware attacks.

Persistent Caching and Prefetching
LucidLink utilizes the local storage on each device to cache the most frequently accessed data and employs sophisticated prefetching techniques that dramatically improve the overall performance when accessing data remotely.

User Access Control
Filespaces can be easily shared across a large number of connected devices or users. To facilitate this, LucidLink gives administrators complete control over which parts of the filespace users can access. This fine-grained access is achieved while maintaining a powerful encryption model, ensuring users cannot decrypt information they are not allowed to see.

Global File Locking
Remote teams working on shared projects, such as architects collaborating on a shared Autodesk Revit model, work seamlessly, as if collocated, without sacrificing performance. LucidLink achieves this by implementing global file locking, giving applications native support for serializing access across multiple users.



Use Cases

The LucidLink cloud file service is transparent to end-users and delivers multiple use-case advantages, such as:

Direct Cloud Backup
Drive operational efficiencies and stay a step ahead of ransomware or data corruption with direct backup to the cloud—no additional local storage, special gateways, or connectors needed.

- » Stream backup files and images from anywhere
- » Recover data on-demand, from any remote location
- » Set snapshots to automatically preserve data at specific intervals
- » View or restore data to a particular point in time

Economical Active Archive
Combine archive and retrieval into a single solution, using economical storage while maintaining file access from anywhere.

- » Gain immediate access to data for current and future use
- » Use any cloud vendor
- » Access both hot and cold data from the same location without a separate process
- » Use economic capacity storage while maintaining quick access to random files

Remote Access to Cloud File Servers
Achieve significant savings by deploying cloud "file servers" or file shares remotely.

- » Move on-prem network shares and file servers to the cloud
- » Eliminate infrastructure such as storage appliances, gateways, and caching devices
- » Gain universal, single-point data access from any internet-connected location
- » Reduce deployment times and boost savings in operational and upfront costs

Run Production Workloads on Object Storage
Free up nearly 80% of high-performance and high-cost storage for file-based workloads while maintaining consistent access to archives.

- » Ingest data directly into a Filespace using cloud storage
- » Utilize any software without refactoring or using a connector
- » Experience streaming and caching equal to NAS
- » Reduce complexity and shorten data transport times

Team Collaboration on Shared Data Sets from Anywhere
Enable global workforce collaboration with immediate and concurrent data access that's as straightforward as sharing a local drive.

- » Stream files on-demand, regardless of the file size or geographic access point
- » Edit files stored in the cloud without downloading or syncing
- » Share information securely at rest and in-flight with end-to-end file encryption
- » Support multiple operating systems (Windows, Linux, macOS) and any file type

On-Demand Access to Video Surveillance Data
Enable immediate and concurrent access to video surveillance data, no matter the file size or footage location.

- » Upload video data directly to the cloud for instant access
- » View any video frame, at any point in time
- » Secure video data with end-to-end file encryption, even while viewing
- » Deliver high-capacity storage at local disk speed

With LucidLink, organizations gain the cost benefits of cloud storage while retaining the performance of on-premises network-attached storage (NAS) without the high cost of deploying, maintaining or managing hardware. LucidLink Filespaces streams files on demand. It is ideal for distributed workflows, remote teams that collaborate across common data sets, and companies that need to provide secure data access to files regardless of file size or where the data is stored.