

Global Data Orchestration Plus Infinite Scalability

Seagate Lyve Cloud and Hammerspace deliver true multicloud and multiregion freedom

Challenge Summary

Data-centric businesses constantly collect, generate, and manage obscure and large sets of data from sources like company networks, employee or customer personal devices, and the connected Internet of Things (IoT). This staggering amount of and variety of data (also known as data sprawl) is produced by enterprise software, storage systems, applications and more and results in unscalable, difficult-to-manage data storage infrastructures. Accessing this data is costly and complex, and results in siloed data that cannot easily contribute to business intelligence. Another obstacle is data gravity which is the concept that data and applications are attracted to each other so as datasets grow larger, it becomes more difficult to move them. The data remains where it is with negative consequences such as storage and transfer costs, and not accessing data for business purposes.

Benefits Summary

- Simplifies IT administration, so applications and users can have high-performance, local access to all their data in the global data environment
- Serves as an ideal solution for high-performance computing, life sciences and healthcare, media and entertainment, and other data-centered industries
- Handles burst computing for workloads that require thousands of compute cores
- Data orchestration allows organizations to leverage compute resources, access compute power within the cloud, and compute in the lowest cost region via Hammerspace's data orchestration capabilities

Seagate Lyve™ Cloud and Hammerspace provide direct access to multiregional data across the multicloud. Hammerspace's services enable read and write operations to enable this freedom. Combined with Lyve Cloud, this solution is a powerful, end-to-end hybrid cloud storage solution that allows for smart data orchestration, the ability to use data for different workloads when needed, and efficient, infinite scalability.

Most businesses are not equipped with the mass-capacity storage that is imperative in today's data-saturated environment. One of the major challenges across all industries is the growth of *unstructured* data and how to store it. Data sprawl causes enterprises to struggle with tracing where their data goes, how it is stored, and who can access it within the cloud. In addition, data gravity creates stagnant and stuck data. Finally, the costs to maintain and store that data within physical infrastructure prevents efficient data mobility when managing it across multiple data centers or the cloud.



Challenge/Problem

Bringing siloed data together is a complex process. Important data is distributed geographically across various repositories on local or network-attached storage devices (NAS), or multiple clouds and cloud services. Precision and timing are required when data is shared and interacts with applications, stationary or mobile end-devices, and a vast variety of multiple clouds and cloud services—all crucial to processing, extracting, and delivering this data.

Beyond that, storage devices for these orchestration functions need to be secure and protected to keep data safe, which adds another layer of complexity. Additionally, performance and latency are priorities to ensure efficient data access for smooth communication and analysis across multiple locations and devices.

Leveraging the public cloud may solve some of these problems. But a key area of concern with pushing any data to the cloud is the unpredictable costs to access that data. Having an edge data storage build allows data to bypass the public internet and overcome data gravity barriers that force data silos and deletion. Public cloud egress fees and complex API and other charges create unpredictable—and often prohibitive—unbudgeted surcharges above basic capacity fees. As a result, data stays siloed even in multiple public clouds.

Solution Approach

What is needed is a solution capable of presenting both on-premise and cloud-data storage in a shared global data space to ensure efficiency and ease of use. It must allow users to access their data from anywhere in the world—no matter if on primary storage or in the cloud—while staying unified in a single global file system.

Lyve Cloud, Seagate Storage Systems, and Hammerspace enables both on-premise and cloud storage in a shared global data space. It solves the challenges of data sprawl and data gravity by making data manageable, whether in the private cloud, public cloud, within an NAS system, or hybrid. With predictable Lyve Cloud pricing and the file-granular, non-disruptive data orchestration capabilities of Hammerspace, IT administrators have control over the variables that can minimize both storage and operational costs. This includes better infrastructure management and ensuring users and applications have access to datasets (regardless of location or where the data is stored).

Seagate Solution

Cloud Storage

Seagate Lyve Cloud is an S3-compatible object storage as a service, featuring predictable pricing and high performance. Lyve Cloud:

- Enables true multicloud and multiregion freedom to optimize storage costs and resiliency, and enhance your data's mobility
- Provides the ability to match solutions to business and organizational needs
- Combines the scalability and flexibility of various public-cloud services, allowing businesses to remain flexible with their IT architecture and customize it to their needs. Helps organizations reduce IT infrastructure total cost of ownership (TCO) by selecting the most appropriate combination of private- and public-cloud models to meet their needs



Lyve Cloud lets you transfer data seamlessly across public- and private-cloud environments (anytime, anywhere, without costly delays), thanks to our best-in-class availability and durable data protection. Additionally, you can cut cloud storage costs by more than half with no extra surprises on your bill. With Lyve Cloud, you pay per terabyte of data stored and that's it. There are no add-on or egress charges, so customers access their data as they need it.

Additionally, Lyve Cloud security certifications ISO 27001 and SOC 2 demonstrate Seagate's commitment to the most stringent, globally recognized data-security standards.



On-Premises Storage

Exos CORVAULT™ is a new and uniquely intelligent category of self-healing, mass-capacity block storage designed to deliver hyperscale efficiencies, rapid deployment, streamlined data orchestration, and reduced human intervention for data center and macro-edge environments. CORVAULT complements Lyve Cloud as an on-premise storage solution when building out a multicloud strategy. It is an ideal foundational storage system, delivering the highest efficiency and performance with minimal management overhead. CORVAULT is often combined with software-defined storage to provide enterprise-wide storage services. Integrated with Hammerspace, CORVAULT provides a compelling storage solution that delivers value, performance, and data protection.

Hammerspace Solution

Hammerspace is a software-defined, data-orchestration and storage solution that unifies all datasets across otherwise incompatible storage silos and geographic locations. Hammerspace allows you to leverage your data from anywhere in the world—no matter where it is stored—unifying the data from edge, datacenters, and the cloud into a single, accessible data set. Hammerspace makes network shares visible and accessible to anyone, anywhere as though they were next to a local data storage center.

Hammerspace Global Data Environment makes this possible by using its metadata-based global file system and invoking file-granular replication to move remote users' files geographically closer when needed. It simplifies data access for distributed workforces and leverages all of your organizations compute resources by delivering a hybrid-cloud NAS solution. This gives customers more options to control, manage, and protect their data. By enabling data mobility between different regions in the cloud with a single command, Hammerspace can tier data across multiple systems and locations, and deduplicate and compress data in-flight and at rest. This is done transparently, without interrupting direct-user or application access to the data.

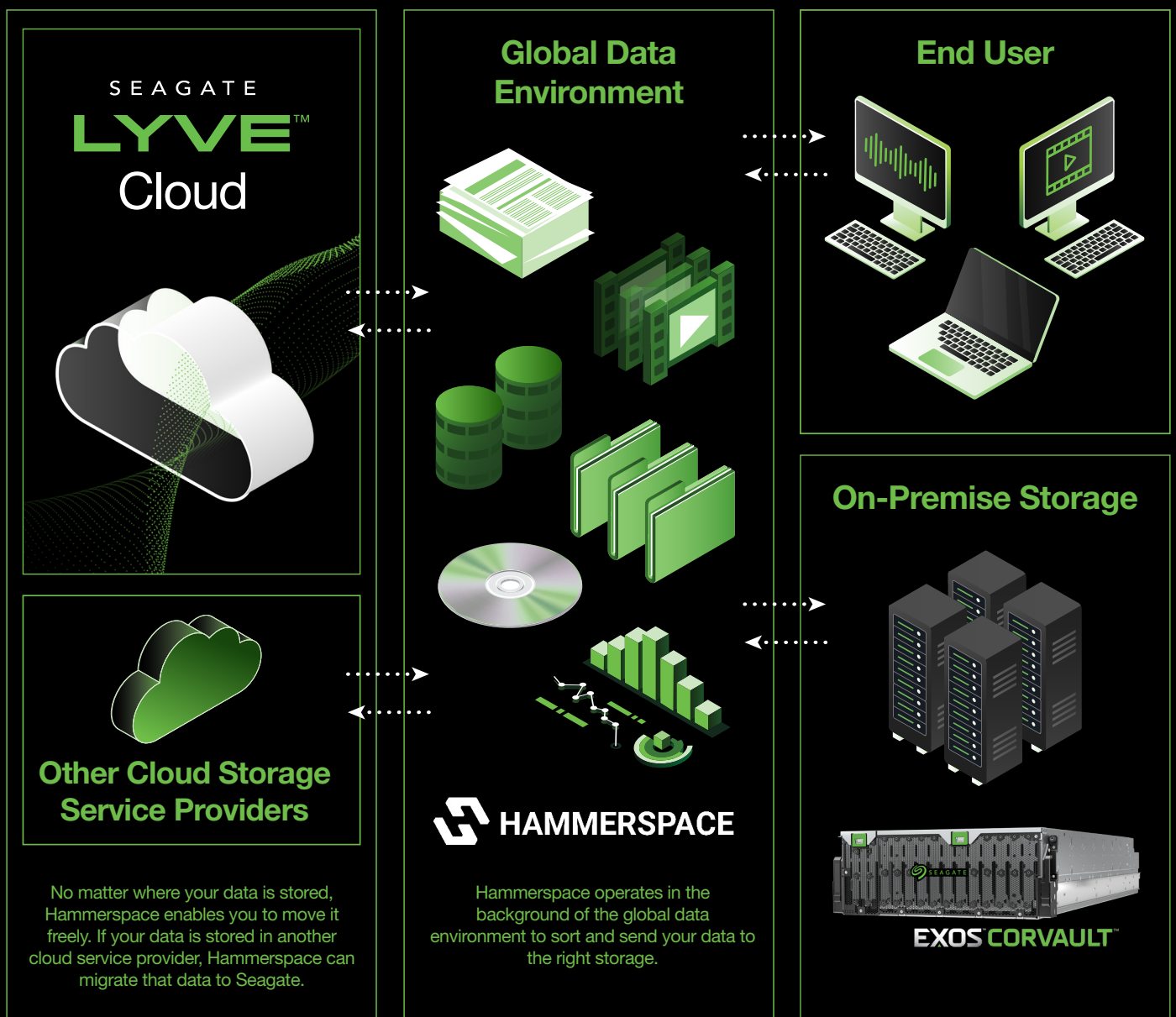
Total Solution

The combination of Hammerspace, Seagate's Lyve Cloud, and CORVAULT enables customers to create an intelligent hybrid-cloud environment and a total solution that enables multicloud freedom. This comprehensive storage solution allows organizations to take complete control of their data and simplifies IT administration so users can access all their data in the global data environment. This solution's capabilities benefit many industries, including: high-performance computing, life sciences and healthcare, media and entertainment, and other data-

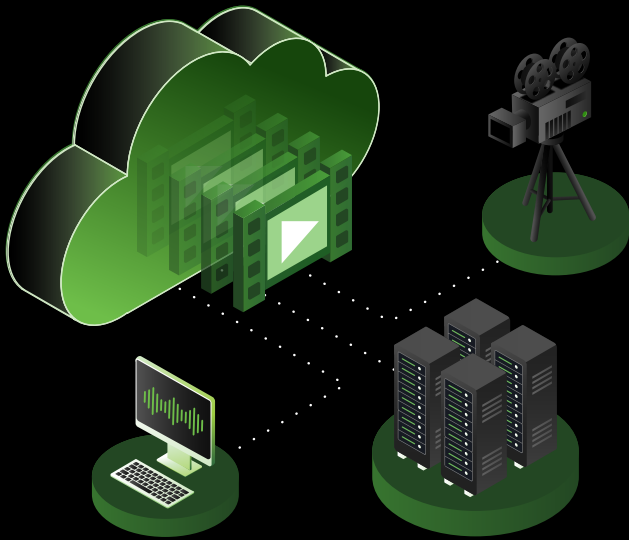


centered industries. One of the most compelling parts of the solution is its ability to handle burst computing for workloads that require thousands of compute cores. Hammerspace's data orchestration power allows organizations to leverage compute resources, access compute power within the cloud, and compute in the lowest cost region. Seagate and Hammerspace provide the maximum elasticity for customers to have total data control and experience true multicloud freedom with powerful, end-to-end, hybrid-cloud storage capabilities, smart data orchestration, and infinite scalability.

With Hammerspace, data-placement policies between multiple on-premises storage types and Lyve Cloud is completely transparent as a background operation. Users simply see their data in their applications or at the same mount point as always...no matter if the files are still on primary storage, or have moved to secondary storage or the cloud. Multicloud and multiregion data mobility is available when you need it and where you can use it best. This is in combination with Seagate Storage Systems and Lyve Cloud, for economical data storage, reliable performance and infinite scalability.



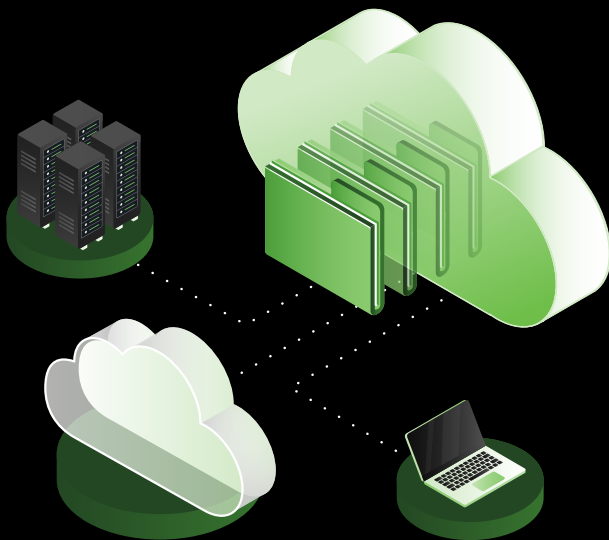
Use Cases



Media and Entertainment

The ability to download and upload to and from the cloud or on-premise data centers (Seagate CORVAULT) is beautifully orchestrated with Hammerspace.

- Hammerspace is designed to help organizations create, analyze, and manage creative projects from inception to collaboration to archive across a decentralized environment. It optimizes the ability to capture, animate, simulate, and render media, or move data orchestration workloads across production stages for better cost and performance.



Advanced Manufacturing

Lyve Cloud provides always-on cloud storage to access manufacturing, research and development, and facilities infrastructure data from any environment—whenever it is needed—and achieve long-term cost predictability.

- Lyve Cloud is a perfect fit for everything from production data to development support. With Hammerspace, this solution enables you to migrate and move data from any storage service or repository (Seagate CORVAULT) efficiently and effectively, so your data is always available when and where you need it.
- Traditional solutions for data-center environments are being overwhelmed by added requirements to run at the edge, capture data, and enable collaboration with remote users. The Hammerspace software solution provides a global data environment to give users and cloud services local access to data no matter where it is stored.



In Conclusion

Seagate Lyve Cloud and CORVAULT, combined with the Hammerspace Global Data Environment, brings you a revolutionary and intelligent new solution to enable true multicloud and multiregion freedom for your data. Move data where you want and make it fully transparent to users or applications without compromise. Have data when you want—on-premise in your own private cloud, through the public cloud, and a multi-site use model—for secure, quick, and efficient data access. It enables you to reduce costs and increase your business innovation and productivity. Take full control of your data with the Seagate and Hammerspace solution.

Experience multicloud freedom with the Seagate and Hammerspace solution today.

Features & Benefits

- Multicloud, multiregion freedom and seamless data access
- Workload optimization, flexible data placement and orchestration
- Seamlessly combined on-premise and cloud storage
- High-performance and limitless data storage
- Hybrid cloud–NAS storage
- No data silos as a result of a global data environment with universal data access delivered through a parallel global files system

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