

Making Hybrid Cloud Storage a Reality for Life Sciences Workflows

SOLUTION BRIEF

Enable Hybrid Cloud Storage in Life Sciences with Zero Changes

The data created by Life Sciences organizations is growing rapidly, out-pacing other industries, and is becoming increasingly more difficult to store and manage affordably using traditional file storage (NAS). Web-scale cloud storage infrastructure provides a cost-efficient and scalable methodology to address this growth, but most workflows continue to use files, not objects, making deployment of cloud storage challenging as an archive tier.

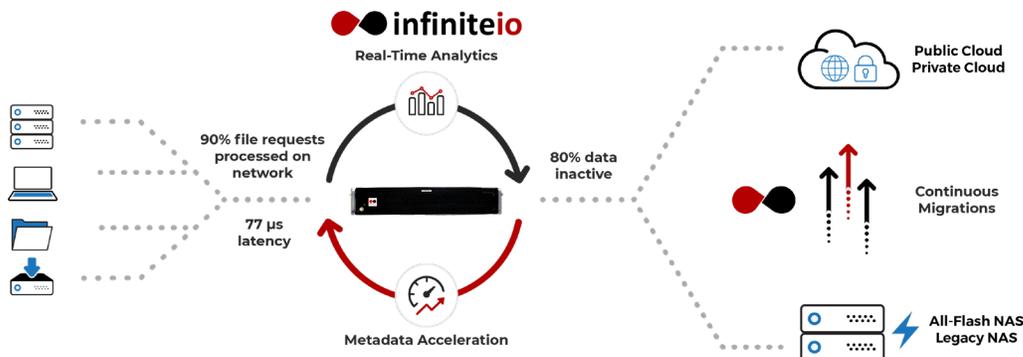
InfiniteIO simplifies hybrid cloud storage and accelerates access to data, enabling bioinformatics customers and partners to:

1. Easily find research data, even if inactive for years
2. Optimize performance and costs
3. Scale the research pool to billions of files

All delivered with **zero disruption** to existing workflows or operations.

Easily Find Research Data

InfiniteIO's patent-pending, metadata management technology is the foundation for real-time assessment of inactive files and instant migration. InfiniteIO identifies inactive files, such as old clinical trials, and can immediately migrate them to private or public cloud object storage or lower-cost NAS, freeing up existing capacity. All files continue to appear local to users regardless of their actual location or frequency of use. Researchers see no changes to their workflow while IT frees up valuable space on the primary NAS for more regularly accessed research files.



InfiniteIO offloads metadata requests, migrates cold data from existing NAS to private or public cloud storage, while making files appear and perform as though they are still on primary storage.

Key Solution Benefits

-  **Deployment in Minutes**
Installs simply like a network switch – with no downtime or workflow changes.
-  **Simplified Data Migration**
Instantly and automatically migrate files to any cloud storage or NAS without continually rescanning NAS systems.
-  **Consistent Flash Performance**
Offloading metadata requests enables legacy NAS and cloud-migrated files to out-perform flash.
-  **Efficient Data Protection**
Reduce backup time, capacity and cost by offloading metadata requests generated by backup apps and using cloud storage for archiving and retrieval.
-  **Totally Transparent File Access**
Make files available for use, even if they have been inactive for decades, by transparently presenting them as local.
-  **Real-time Insights**
Gain real-time insight to improve and automate management for your hybrid cloud storage infrastructure.
-  **Enterprise Scale**
Scales to billions of files regardless of capacity on a single system.
-  **No Hidden Costs**
System-based pricing avoids unnecessary capacity-based data management fees even as file or capacity counts grow over years.

Optimize Bioinformatics Performance and Cost

A recent review of a [Life Sciences customer](#) relying on InfinetelO and private cloud storage revealed that 86% of file operations were metadata operations. These operations were driven by workflows specific to Life Sciences, with many small files per directory very common, meaning many millions of metadata operations for even a simple directory listing. This would typically lead to huge performance bottlenecks in other hybrid cloud solutions that are not metadata-aware. InfinetelO is optimized to serve metadata requests from the network, offloading and accelerating responses: as metadata responses are accelerated, primary NAS performance increases as CPU, memory, and disk contention is reduced. Organizations can maintain years of research data and still reduce storage costs by up to 80% through intelligent file-based metadata management that accelerates metadata performance for Life Sciences workloads and migrates cold or warm data to more affordable tiers of storage.

Scale Research Pool to Billions of Files

InfinetelO scales to billions of files and petabytes of capacity. You can protect and enhance research databases over a true hybrid cloud based on NAS and private or public cloud infrastructure, without making changes to existing operations. Files and objects are managed together in a unified pool leveraging any object storage system of choice. When a file does need to be read or written, InfinetelO recalls the file from cloud storage to its original location, allowing the NAS system to respond to the research request as usual, without changes to existing users, systems or applications.

A Large Bioinformatics Institute's Success, Powered by InfinetelO

- o 38 million unique requests per day
- o 8.7 PB of downloads by researchers
- o Reclaimed 75% of primary NAS by migrating 2.5 PB of cold data
- o 3.5 PB of data generated overall
- o 12 PB inactive data projected in 3 years
- o Estimated \$1.1 M savings up-front, \$7.4 M over 3 years

Focus on Science, Not IT

From installation to migration and recall, the InfinetelO solution is transparent to end users with no disruption to any workflow. IT customers avoid needing to install proprietary software on clients or systems, and are free from stubs, symbolic links or constant scanning of file systems that slows workflows down. InfinetelO enables migration of infrequently accessed files to the lowest-cost tier of storage that is non-disruptive, automatic and continuous and can begin immediately based on business policies set by IT. As a result, storage administrators can optimize performance and cost while ensuring live access to current and historic bioinformatics data. Research scientists and other end-users will continue to use and access data as they have always done, regardless of where the files are actually stored. InfinetelO provides the only Life Sciences solution that simplifies hybrid cloud storage to support exponential growth of research data while increasing performance, with no disruption to existing workflows.

Start Here

Go to www.infinite.io learn more about hybrid storage cloud solutions.

Download the **Infinite Insight** hybrid cloud storage ROI calculator from www.infinite.io/ROI to quickly identify opportunities to migrate inactive or cold data to cloud storage and save up to 80% in storage costs.

Watch "How does InfinetelO work?" on [Youtube](#).

Request a [demo](#).



InfinetelO makes hybrid cloud storage simple and fast, ensuring information flows to people and applications that need it most, without disruption. Based in Austin, Texas, InfinetelO provides real-time insights to analyze, optimize and scale capacity and performance throughout the hybrid cloud for global enterprises, research organizations and media companies. InfinetelO offers customers and partners the fastest way to implement a hybrid cloud strategy and maximize the value of cloud storage. Learn more at www.infinite.io, [@infiniteio](#) and [LinkedIn](#).

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