

White paper

How to evaluate hybrid cloud storage solutions





What is hybrid cloud storage?

Hybrid cloud storage solutions that combine elements of on-premises systems with the many advantages of cloud are now an enterprise necessity. As IT infrastructure and operations (I & O) teams transition from deploying hardware to providing data services, large organizations have migrated tens of petabytes of globally distributed file data from local storage and into unified hybrid cloud storage.

The core appeal of hybrid cloud storage is simple. Enterprises want to maintain the familiarity and fast performance of traditional systems while taking advantage of the scale and cost efficiencies of the cloud. At the same time, this combination is no longer the sole driver of the rapidly growing market for hybrid cloud storage. A well-architected hybrid cloud storage solution delivers an increasingly wide range of data services and capabilities that will help organizations do more with their unstructured data today and tomorrow, including data intelligence and insights derived via AI, cyber-resilience (with built-in ransomware prevention, detection, and recovery), compliance, life cycle management, data mobility, and more.

This white paper is designed for infrastructure leaders looking to understand why hybrid cloud storage is gaining popularity, what it could deliver for their organization (with examples of organizations that have benefited from the shift to the hybrid cloud), and what to look for in a hybrid cloud storage solution.

Why hybrid is popular now

The age of file storage silos has passed. You cannot satisfy your end users and meet strategic business initiatives by relying on a file storage and data protection infrastructure designed around dozens or hundreds of isolated technologies deployed at various office locations. Cloud-only solutions create their own problems, as end users expect and deserve



2023 is the modern era where the data center is no longer the center of data.”¹

Gartner Research

a level of performance that the cloud cannot deliver in all scenarios. A hybrid cloud solution offers the best of both worlds and provides a suite of OPEX-based data services that can be deployed on-demand at any location. There are several additional reasons for the burgeoning popularity of hybrid solutions.

Unstructured data growth

Gartner clients are reporting 30% to 60% growth in unstructured data. This file data is being generated at the edge and needs to be consolidated centrally to facilitate file sharing and collaboration, simplify management, ensure compliance, and prevent data isolation. Yet this newly generated data must also be available to those edge users at local speeds.

Application performance

Users need to be able to work inside their preferred applications regardless of their location. This demands that necessary file data be close to those applications, or performance will suffer.

Remote & hybrid work

Many organizations have adopted a hybrid work model for employees and, therefore, must provide their end users with fast access to their file data regardless of whether they are working at headquarters, at home, on a job site, or in a coffee shop. This experience must be seamless and support productivity everywhere.

Cloud services

By centralizing file data, hybrid cloud storage gives organizations a new degree of flexibility; enterprises need to be able to seamlessly leverage new cloud services to get more out of their data.

Cloud economics

The cost advantages of moving from hardware-focused CapEx to a flexible OpEx services model have been proven at scale. Organizations are reducing the cost of storing, protecting, and extending access to their file data by up to 50% globally. At this point, it is financially irresponsible to avoid the cloud.

These are only a few of the forces driving hybrid cloud storage adoption. Digitization, globalization of data and operations, and the increasing importance of strategic cyber resilience plans are also contributing factors. But what does a transition to hybrid cloud storage look like for large organizations? In the next section, we will review real but anonymized examples.

60% of I&O leaders will implement hybrid cloud file deployments by 2026

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Customer stories: what hybrid cloud storage delivers

Operational excellence

A well-architected hybrid cloud storage solution will eliminate Network-Attached Storage (NAS) hardware across your enterprise, reduce or eliminate data centers, and massively simplify management for IT, freeing up time for administrators and others to work on higher-value projects. With hybrid cloud storage, globally distributed silos of file storage, backup technologies, and disaster recovery solutions are replaced by a single platform.



Micro case study \$3.25M savings

When the healthcare wing of a leading global organization received a mandate to exit its corporate data centers by the end of 2024, the IT leaders evaluated their options. They determined that only a hybrid cloud storage solution would satisfy every layer of the company, from end users to executives. As the healthcare division divests from its corporate parent, the new operation will consolidate hundreds of file storage and backup management points into a single hybrid cloud solution. This transition will save the business \$3.25M annually relative to continuing with its traditional on-premises infrastructure.

Risk avoidance

One of the added advantages of consolidating all global data into a single hybrid cloud storage platform is that it can be easier to protect against ransomware and other threats by leveraging the immutability of cloud object storage. Data protection becomes a built-in element of the storage platform that works constantly in the background and requires no maintenance or oversight.



Micro case study ransomware resilience

A major European energy provider recognized the transformative potential of this new approach to data protection recently when they realized their existing infrastructure posed a risk to operations, as a ransomware attack could have taken one or several key locations offline. Remaining anchored to on-prem storage also limited their ability to tap into other cloud services. The company consolidated its file data in cloud object storage with a hybrid solution that provides fast access through virtual edge appliances and advanced ransomware protection, detection, and recovery services.



User productivity

A well-architected hybrid cloud storage solution should prove transformative for end users. Instead of merely maintaining the level of performance to which they have grown accustomed, a modern hybrid cloud storage solution should extend fast performance and seamless collaboration to all locations. Users should be able to work at speed from anywhere in the world.



Micro case study anywhere access

Years of unstructured data growth prompted a forensic engineering and investigation firm to evaluate storage alternatives. The company found a hybrid cloud storage solution that could solve its capacity problems and extend advanced file services to users everywhere, including professionals working in the field at building and crash investigation sites. Now, the firm and its IT leadership have extended fast file access and automatic protection to every member of its operation.

What to expect of hybrid cloud storage

Organizations considering a hybrid cloud storage solution should evaluate the technical architecture as a first step. The massive change in the storage market forced the leading traditional storage vendors to adapt. Still, they did so by simply lifting their standard file system architectures out of local offices and data centers and into the cloud. While this initially allowed for a more comfortable transition to the cloud, organizations that opted for these cloud-washed solutions have now begun to experience scale limitations, unexpectedly high costs, and frustrating management complexity.

All forward-looking I&O leaders should approach these solutions cautiously and look instead for hybrid platforms architected for the cloud from the start. Once the IT infrastructure team is confident the solution is not a traditional storage file system dressed in cloud clothing, the organization should expect three essential qualities.



Effortless scalability

A hybrid cloud storage platform must deliver NAS consolidation for fast, easy, and flexible management and be designed to scale quickly and cost-effectively without any limitations on files, file size, volumes, snapshots, locations, or number of users.

Some benefits of a truly scalable hybrid cloud storage platform are:

- **It allows you to quickly adapt and expand** to meet your growing data needs and the diverse workloads and applications that require fast access to storage.
- **It offers a single global namespace** to consolidate previously disparate file shares, simplifying administration.
- **The architecture provides** you the flexibility you need by supporting multiple cloud providers and protocols.
- **It uses native-cloud object storage**, significantly lowering costs while removing all traditional NAS limitations.



Built-in security

A hybrid cloud storage solution must provide data protection capabilities that ensure you can rapidly recover from cyber-attacks, human error, or disasters rapidly.

Some benefits of a secure hybrid cloud storage solution include:

- **Strong security capabilities across all aspects** of the infrastructure including strong encryption, robust access controls, auditing and logging capabilities that integrate with leading SIEM / SOAR solutions to support SecOps team cyber response programs.
- **Ransomware detection and mitigation at the edge:** Having cyberstorage capabilities built-in prevents the spread of ransomware and offers an early warning system for your environment. Once an attack is detected, recovery must be extremely fast so that business operations are not severely disrupted.
- **Immediate recovery:** Files, volumes and directories must be able to be recovered in minutes, not hours or days, to keep your business running with little to no disruption. A strong hybrid cloud solution will offer unlimited snapshots and file versioning, and fast disaster recovery to get your users back up and running fast.

Fast edge performance

Ideal hybrid cloud storage solutions allow users and teams to access and collaborate on their data without requiring changes to applications or workflows. The solution should provide fast, secure data access across different locations, such as corporate offices, branch offices, and home office locations. Users have no tolerance for cloud-induced latency, and a hybrid cloud storage solution provides local devices at the edge to provide LAN-like performance while synchronizing content in the cloud.

Intelligent edge devices provide many advantages as a part of a hybrid cloud storage architecture.

- **Improving performance and reducing latency.** By intelligently caching data at the edge, users can access it faster and more reliably without having to retrieve the latest version from the cloud. This improves the user experience and the productivity for applications that require fast response times.
- **Reducing bandwidth and improving security.** By caching data at the edge, less data needs to be transferred over the network, which saves on bandwidth and egress costs. With ransomware detection deployed at the edge, the impact from an attack is significantly reduced.



Let's talk

How to Learn More About Hybrid Cloud Storage

The Nasuni File Data Platform provides organizations of all sizes with a hybrid cloud storage solution that goes far beyond what traditional infrastructure or other cloud providers can do.

[Learn more](#)

Nasuni is a scalable data platform for enterprises facing an explosion of unstructured data in an AI world, eliminating the choice between expensive tinkering or an overwhelming transformation of your entire data infrastructure.

The Nasuni File Data Platform delivers effortless scale in hybrid cloud environments, enables control at the network edge, and meets the modern enterprise expectation for protected, insight- and AI-ready data. It simplifies file data management while increasing access and performance.

Consolidate data, cut costs, and empower users – all while transforming your data from obstacle into opportunity.

