

Accelerate your transformation to cloud

IBM Cloud Private Storage facilitates hybrid cloud adoption by providing single-tenant storage clouds for both traditional and IBM Cloud workloads

Introduction

Enterprises today are making a significant shift from building IT infrastructure to consuming infrastructure by moving to a cloud first model. Customers like the flexibility, agility and economics of using the public cloud but are finding out that the public cloud is just one end of an increasingly varied, workload continuum that they need to operate with, in their digital transformation journey. As a result, customers are crying out for an effective hybrid cloud approach that supports application execution across this more complex and diverse workload environment.

To facilitate a hybrid cloud environment, IBM® offers cloud solutions such as IBM Cloud Private Storage, a storage as a service solution. IBM Cloud Private Storage facilitates hybrid cloud by providing single-tenant storage clouds for traditional, on premises environments and IBM Cloud workloads.

IBM Cloud Private Storage can ease the transition to a more agile, hybrid cloud environment by managing the storage infrastructure to transform legacy, on premises IT storage environments. With IBM Cloud Private Storage on premises, IT can renew applications through the use of a storage cloud model to support data requirements.

In addition, IBM Cloud Private Storage offers storage for performance- or data-sensitive workloads on IBM Cloud™. This storage can be used to support cloud based applications that take advantage of the performance and security of enterprise class storage while running in the IBM Cloud.

Moreover, for both traditional, on premises and IBM Cloud environments, IBM Cloud Private Storage provides a no capital expense (Capex), only an operating expense (Opex) financial model that can make it more financially feasible for IT to implement cloud operations.

IBM Cloud Private Storage

IBM Cloud Private Storage accelerates hybrid-cloud adoption by offering dedicated, single-tenant storage in a consumption-based, storage as a service model for customers worldwide. Users view the solution as “black box” storage with service

levels and virtually unlimited capacity that can speed up application performance as well as scale to match any data requirement.

Since it is offered in a consumption-based model, clients pay monthly for what they use. As workloads change, IBM Cloud Private Storage can be adjusted to match current needs. Moreover, IBM Cloud Private Storage supplies multiple performance levels from high performing, low latency all flash modules to capacity optimized disk for both block and file.

For customers looking to modernize their storage infrastructure, IBM Cloud Private Storage offers,

- **IBM Cloud Private Storage for traditional workloads** brings fully managed, private cloud storage to legacy environments and provides multiple block and file data tiers to support traditional application access to private, single-tenant storage.
- **IBM Cloud Private Storage for IBM Cloud** brings fully managed, single-tenant, block, file and object storage to IBM Cloud environments, providing block and file storage housed in IBM Cloud Direct Link Dedicated Hosting colocation facilities as well as dedicated object storage located in IBM Cloud, to support cloud application access to private, single-tenant, enterprise class storage.

IBM Cloud Private Storage for traditional workloads

For workloads running in customer data centers, IBM Cloud Private Storage's multiple data tiers allow IT to match the cost of storage to the value of the data. For unstructured data requirements, IBM Cloud Private Storage offers three tiers of file storage including **standard**, **performance** and **all-flash file** and for OLTP, database, HPC, and ERP application data requirements, two tiers of block storage including **performance** and **all-flash block** storage.

IBM Cloud Private Storage is a fully managed service where IBM procures and owns the storage, deploys in the chosen facility, operates and maintains storage hardware/software throughout the life of the service. Clients can have IBM manage the private storage cloud at their own data center or in an IBM data center.

With IBM Cloud Private Storage, customers can support a more cloud-like operational environment with enterprise class storage made available in a consumption based financial model. Application data requirements can be met with storage capacity and performance that can change along with your workloads. All operated and managed by IBM, freeing up IT resources to work elsewhere.

IBM Cloud Private Storage for IBM Cloud

IBM Cloud Private Storage also provides single-tenant, scalable block, file, and object storage to match dynamically scalable compute in IBM Cloud that complements existing IBM Cloud public storage for cloud workloads.

With IBM Cloud Private Storage for IBM Cloud, single-tenant, enterprise-grade, **all-flash block** and **all-flash file** storage is available in a colocation facility. This storage is adjacent to compute in IBM Cloud using IBM Cloud Direct Link Dedicated Hosting. IBM Cloud Direct Link Dedicated Hosting provides a consistent and high-throughput direct connection between the storage and IBM Cloud, allowing fast transmission of unlimited amounts of data with no additional data transfer costs. Customers can take advantage of IBM Cloud Direct Link Dedicated Hosting to run performance- or data-sensitive applications in IBM Cloud and scale their storage environment as workloads change.

IBM Cloud Private Storage also offers dedicated object storage in IBM Cloud for clients that need a single tenant option in a cloud-based deployment model. Like all IBM Cloud Private Storage, IBM owns and operates the object storage for a pure managed service.

Object storage is a recent addition to data storage technology that differs from block or file storage, in that it uses a flat hierarchy where objects are stored in buckets and object data is immutable once stored. Also, unlike block and file storage with standard's limited metadata, objects support customizable metadata. Applications and users access object storage with an object ID and bucket (URL) address using RESTful protocols.

IBM Cloud Private Storage enables cloud object data workloads such as big data analytics, AI, and machine learning. A three-site configuration for geo-dispersing data across sites offers built-in redundancy and availability. Other vendors charge extra for this redundancy, but it's included in the IBM Cloud Private Storage monthly rate.

Summary

With IBM Cloud Private Storage, customers can now more easily support a true hybrid-cloud environment for applications by using single tenant storage across customer data centers and IBM Cloud. This translates to a customer-exclusive, dedicated storage as a service infrastructure owned and managed by IBM.

IBM Cloud Private Storage can also grow or shrink to meet any customer data requirement and support a consistent cloud operation model. Enterprises can use the same pay-as-you-go/pay-for-use storage as a service model wherever their applications reside.

Finally, IBM Cloud Private Storage makes deploying data storage to meet customer application needs much simpler and fosters a more agile, hybrid-cloud IT environment.

Silverton Consulting, Inc., is a U.S.-based Storage, Strategy & Systems consulting firm offering products and services to the data storage community.



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