

# 4 Question CLOUD STORAGE QUIZ

Gain clarity on using cloud storage to drive intelligent business outcomes

# We have questions for you. And answers.

If our cloud storage self-assessment questions have you stumped and responding with lots of “umms,” the information that follows is sure to give you a new sense of “aha” clarity. Let’s dive into a few common cloud storage challenges and how to resolve them.

## The **4**QUESTION QUIZ

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- ?1** Who owns and manages our cloud storage?
- ?2** What do we pay each month for cloud storage?
- ?3** Do we have a plan to increase storage capacity?
- ?4** Do we tier data or treat it all equally in the cloud?



# Who owns and manages our cloud storage? (Or who will?)

**The challenge.** Managing storage for growing data volumes is increasingly complex. Should you maintain it on your network? Onsite or off? In the cloud? Not in the cloud? Store different data sets in different ways?

Keep in mind this cloud storage self-assessment does not address operating workloads, enterprise applications, compute functions often hosted in the cloud. Our focus here is on efficiently storing your data in the cloud.

Like other facets of IT, cloud storage delivers the best results with an up-front strategy and diligent monitoring. Often, though, account ownership and oversight are distributed across teams or to a stretched IT team with minimal cloud storage expertise. Ideally, the responsibility is assigned to provide a consolidated view and awareness of all open cloud storage accounts and their providers.

The volume of data generated is doubling about every four years. To keep up, your organization will need a strategic plan for how cloud infrastructure will support and grow with your data and your business. A sound cloud strategy will align storage needs with business operations, goals, budgets and financials.

**50%** of all corporate data is stored in the cloud

Statista 2021




**The Solution. Managed cloud storage.** Supplementing your in-house team with specialized cloud expertise ensures the most efficient productive utilization of all types of cloud storage. Their heads, metaphorically, are in the cloud every day.

Rely on them to look at your enterprise's operations and the types of data being stored. Guided by those finding, they'll identify solutions across the appropriate cloud platforms – public (AWS, Azure), private, community, and hybrid. They also know how tools and applications you use integrate across the various cloud platforms.

Having dedicated cloud experts in your camp can deliver peace of mind that you're on the right cloud for your specific applications and data types.



## Which cloud is the right cloud?

	 <b>PRIVATE CLOUD</b>	 <b>COMMUNITY CLOUD</b>	 <b>PUBLIC CLOUD</b>
Tenancy	Single Tenant	Multi-Tenant	Multi-Tenant
Access	User defined	Provider-vetted access	Open public access
Privacy/Security	Full flexibility, user defined	Provider defined, limited customization	Provider defined
Application Migration	Customize frastructure for applications	Leverage platform tools or custom solutions	No customization, limited to platform tools
Network/Connectivity	Isolated physical devices, customizable access via internet, fiber, VPN	Shared physical devices, customizable access	Shared physical devices, internet access
Resource Configuration	Fully customizable	Fully customizable	Predefined by provider
Hypervisor Level Access	Full Access	Limited Access	No Access
Compliance Responsibility and Controls	User assumes ~80%	User assumes ~50%	User assumes ~60%
Performance Expectations	High level of performance predictability	Performance predictability subject to infrastructure contention	Performance predictability subject to infrastructure contention
Platform Support and Maintenance	Fully transparent/customizable maintenance and support regiment	Limited platform transparency/standardized maintenance and support regiment	Zero transparency/standardized maintenance and support regiment
Scalability	Scales in predefined packages/units	Granular scaling on-demand	Granular scaling on-demand
Storage Cost/GB	\$\$\$	\$	\$\$
Internal IT Staffing Cost	\$\$	\$\$	\$\$\$
Variable (Metered) Usage Costs	No	No	Yes
Financial Model	OpEx	OpEx	OpEx

Private, community, and public cloud each offer advantages and trade-offs. Fortunately, you don't have to make an either/or decision and can leverage their collective strengths in custom hybrid cloud environment.



## What do we pay every month for cloud storage?

**The Challenge. Unpredictable variable costs.** In recent years, the cost of data storage has become one of the top concerns among IT departments. And that's not likely to change any time soon. If you're unclear about who manages your cloud infrastructure and data storage, you likely couldn't begin to estimate what your company pays every month for cloud.

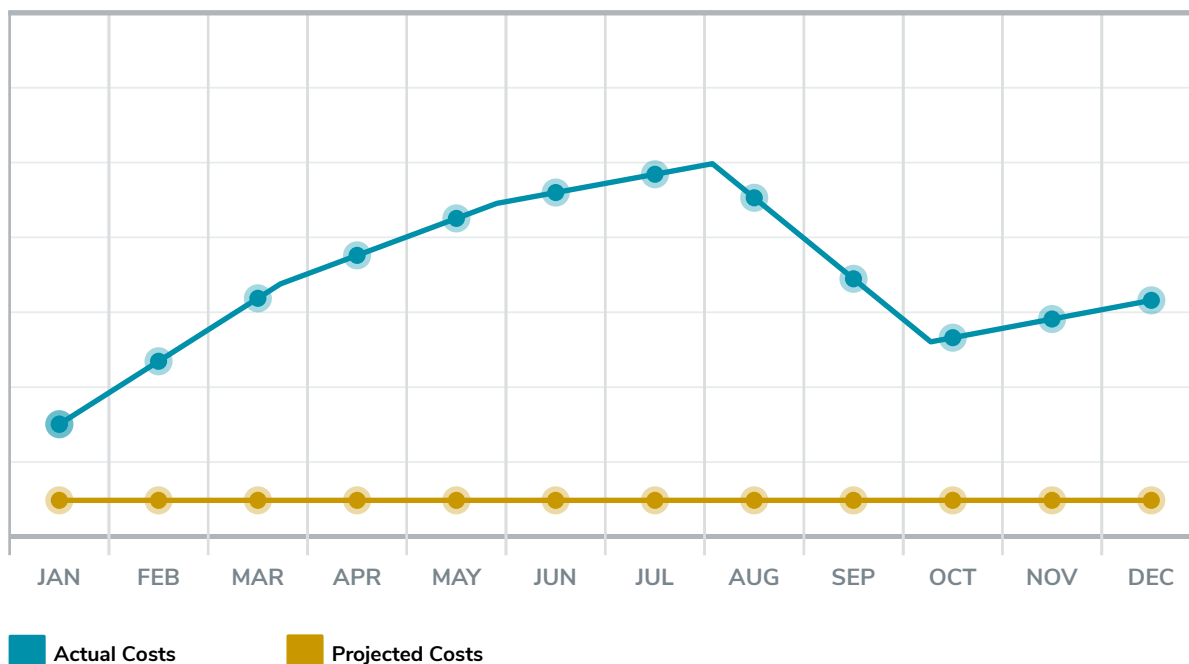
Few enterprises with multiple teams, projects and budgets take the time and effort to allocate cloud storage services to specific teams or cost centers, creating a pattern of recurring spending with no accountability. In other words, without a consolidated view of your cloud infrastructure, it's impossible to know who's spending what. And for what types of cloud services.

Cloud storage is typically billed monthly at a base fee per gigabyte. But pulling data out of cold storage for backup or routine computing triggers a separate fee known as "egress" which can double or triple your monthly cloud costs, undermining the whole OpEx predictable spending concept.

Throw in a few other variable transaction fees — tied to compute functions and data transfers — and you'll need serious detective skills to make sense of monthly cloud costs. And a crystal ball to predict what they'll be month to month.

You'll need a crystal ball to predict what storage costs will be month to month.

## Perception vs Reality of Cloud Storage Costs



In an ideal OpEx model, costs are consistent and predictable month to month. However, variable costs are difficult, or impossible, to predict, creating a budgeting nightmare. Layered on top of monthly storage, they can double or triple cloud storage costs.

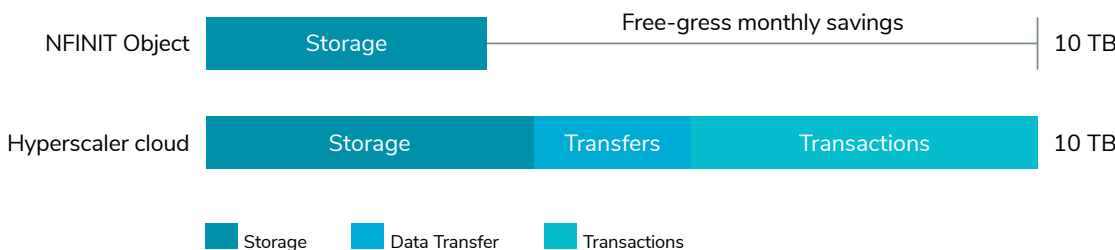
ComputerWeekly warned readers to “beware of costs and egress issues.”

### **The Solution. Consolidate oversight for single pane visibility of cloud costs.**

When using your data results in “surprise” expenses, it’s a problem. Even [ComputerWeekly](#) warned readers to “beware of costs and egress issues.”

Consolidating cloud storage oversight provides better understanding of variable vs fixed costs. With that clarity, you can align storage types by data usage and immediately reduce variable egress and transaction costs. Inactive archival data doesn’t rack up variable charges, but keeping frequently accessed customer data in a public cloud does. As does storing, then accessing, large files such as videos and images.

## How much of your monthly cloud storage cost is actually for storage?



Cloud costs can triple when you add in variable egress and transaction fees. Using NFINIT Object storage for specific data sets gives you more control over spending.

Adding [NFINIT Object](#) with Free-gress billing into your cloud storage mix eliminates variable costs for a truly predictable OpEx solution.

How you connect to the cloud, or clouds, also impacts monthly spending. Consolidating connectivity through a private circuit, which AWS, Microsoft Azure and Google all offer, provides a more secure and latency predictable path along with a better financial model. This strategy can save up to 66% vs a standard public internet connection. NFINIT offers a flexible solution that allows for diverse cloud connections to all of these providers and more through the NFINIT Network Passport.

[The Data Explosion and Hidden Costs of Cloud Storage.](#)

[Is OpEx Cloud Storage Really a Predictable Cost Model?](#)

[NFINIT Savings Calculator](#)

[NFINIT Network Passport Overview](#)

### “ Cloud repatriation rescues CIOs from mounting costs.

The public cloud is a boon for getting applications up and running in a jiffy, but some CIOs have found that business agility comes at a premium and are rethinking their deployments via repatriation.

[CIO: Cloud Repatriation](#)

**Clinton Boulton**  
SENIOR WRITER, CIO



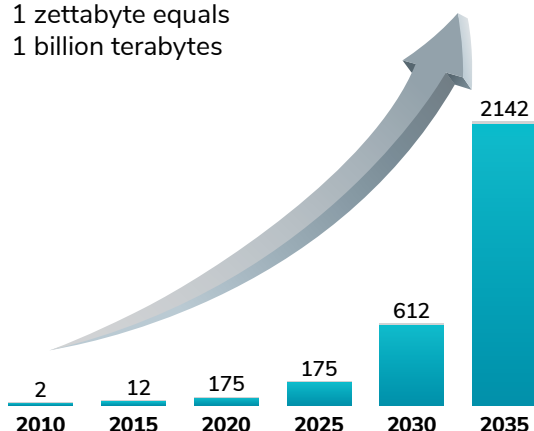
# Do we have a plan for adding cloud capacity?

**The challenge: Immediate gratification vs long-term strategy.** One of the many advantages of migrating to the cloud is the ability to add storage capacity—virtually any time without having to purchase any additional hardware. In the rush to solve a capacity shortage, on-demand capacity is often the simple choice, but not the smartest or most cost-efficient.

Common (and costly) mistakes include not anticipating the need for added capacity and purchasing too much capacity at higher on-demand pricing simply because it delivers what you urgently need the minute you need it. On-demand capacity is typically more expensive than other options. With one major hyperscale public cloud provider, you'll pay up to a 75% premium for on-demand storage.

## Global Data Growth in Zettabytes

1 zettabyte equals  
1 billion terabytes



Statista Digital Economy Compass 2019

## **Solution: Anticipate and plan for extra capacity.**

Have you projected what your storage needs will be six months, a year, two years out? Do your capacity needs vary throughout the year? Managed cloud services can flex, moving data between storage options and cloud types based on usage patterns. Active data in one type, archival data in another. This simple strategy will leverage the capacity you own and utilize it more efficiently, so you don't over provision and pay for more storage than you need.

Establishing end-of-life plans for stored data should also be part of your capacity planning. This regimented discipline keeps capacity, and spending, in check. If you have specific compliance requirements for a certified disk-level data destruction process, this too, should be part of your plan.



# ?4

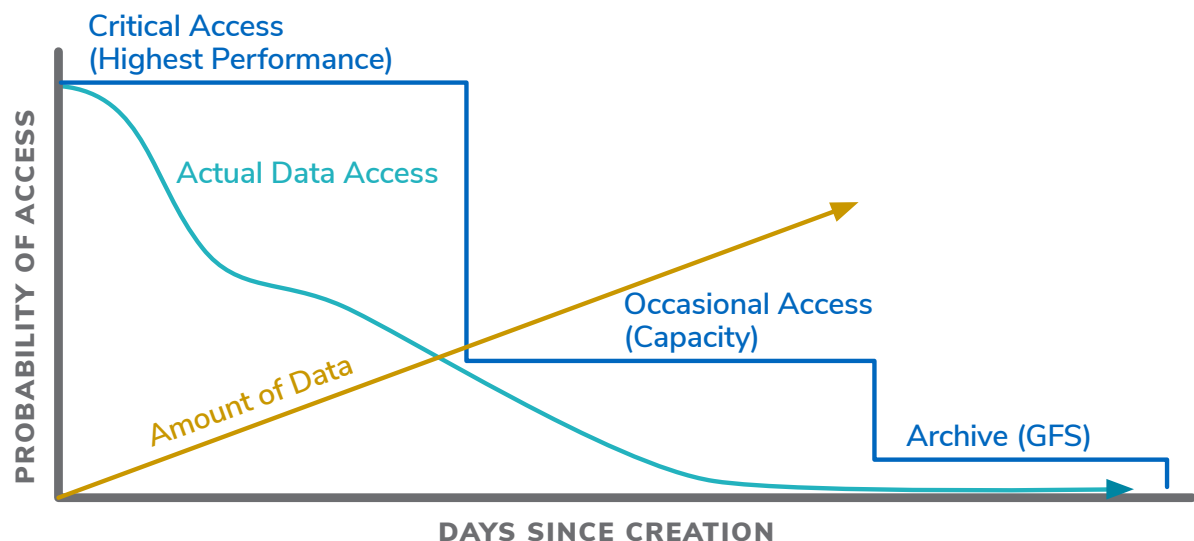
## Do we tier data or treat it all equally in the cloud?

**The Challenge. Balancing cost and performance.** Cloud is a valuable platform but requires forethought of what type of data goes where to align costs with specific business operations and budgets. How your data is stored in terms of tiers will have a huge impact on total cloud costs.

Active (production) data storage tiers are the most expensive because they are for frequently accessed data that requires high performance. But many organizations view cloud as a single entity with one type of storage. Too frequently, the most expensive storage is used for virtually everything.

**Solution: Don't treat all your data the same.** Build a cloud strategy based on data tiers, considering the performance requirements, lifecycle, and value of the various data sets.

### Information Lifecycle Management (ILM)



Implementing a tiered data retention strategy as part of an ILM ensures efficient and cost-effective cloud utilization.

The alternative to tiering data is treating it all equally. Follow this strategy and you're choosing to store all data as your most valuable and accessible, the equivalent of the performance tier, which comes at a premium cost.

Let's use a closet analogy. The clothes you wear most frequently are hung front and center, within easy reach. Suits and silk blouses are probably pushed over to the side or to the back. Things you seldom need, like a tux or formal dress, are stored in zipped garment bags for safe keeping in the attic or guest bedroom closet.

Now imagine that you had to pay for closet space, with the front of your main closet commanding the highest cost. Is it worth it to store infrequently accessed zipped garment bags there? Equally important, do you have a plan for purging?



[Dollars & Data: Tiering for backup and business continuity.](#)

## Ready for a rapid proliferation of data?

There's really no way around it, your company's data storage needs are very likely going to double within a few years. Your budget won't, requiring that you maximize ever-evolving cloud options. With an IT staff already stretched thin, their ability to stay current is limited.

Our cloud engineers focus on building and implementing smart strategies for our clients. It's what they do every day. NFINIT is uniquely qualified to help you customize and leverage the full array of cloud solutions for optimized data access and storage.

**Talk to NFINIT today about a free Cloud Storage Check-Up. [NFINIT.com/contact](https://nfinite.com/contact).**