4 Surefire Ways to Control Cloud Storage Costs

Gartner predicts that 80% of businesses will overspend their cloud infrastructure budgets. Since storage is the second largest spend item in the cloud, it's time to take a look at how to contain those costs. This brief discusses the challenges of managing cloud data and lists four proven ways to rein in your cloud storage costs.

80% WILL BLOW their cloud budget

#2 cloud spend item: STORAGE

—Gartner*

^{*}How to Identify Solutions for Managing Costs in Public Cloud IaaS", Gartner 2018.

Why cloud storage costs are hard to handle

Containing rising cloud storage costs is no easy feat. The biggest challenges cloud administrators face are **poor visibility** and the **complexity** of cloud data management and pricing.

Poor Visibility

What's in your clouds?

Typically, IT has little to no idea about their company's data in the cloud. "Bucket sprawl" makes matter worse, as users can all too easily create accounts and buckets and fill them with data—some of which is never accessed again. IT has no way of knowing even the basic information to make better storage decisions:



- How fast is cloud data growing and who's using it?
- How much is active vs. how much is cold?
- How can you dig deeper (e.g. by prefixes or departments or owners or file sizes) to plan the best way to optimize storage costs and minimize retrieval fees?

Complexity

A multi-factored headache

The complexity of some cloud storage providers is so epic that there are entire businesses devoted to interpreting their billing.

Cloud administrators are responsible for factoring:

- Multiple billable dimensions and costs: storage, access, retrievals, API, transitions, initial transfer, and minimal storage-time costs
- Unexpected costs of moving data across different storage classes. Unless access is continually monitored and data is moved back up when it gets hot, you'll face expensive retrieval fees.

...All in their spare time. This complexity is the reason why less than 20% of organizations are leveraging the cost-saving options available to them in the cloud. Less than 20% of businesses leverage

cost-saving options in the cloud.

—Gartner

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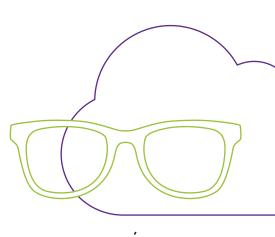
Taking the pain out of managing cloud data and saving costs requires radical simplification. We've identified four things that will simplify and bring cloud costs under control. By implementing these strategies, you can save 50% or more of your cloud storage costs:

Gain Accurate Visibility Across Cloud Accounts into Actual Usage

Because cloud administrators are the custodians, not the users of the data, they don't know how the data's being used. So first you need to get your true cloud picture—across all your cloud accounts and services—no matter what vendors and cloud services you use. You need to know your data usage, growth, and costs so you can optimize your cloud data.

The more granular the insight, the better. Ideally, you should know how much data you have, what storage classes are being used, who's using the data and when it was last used/accessed, how it's growing, and probabilities of future data access.

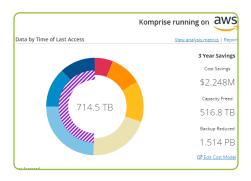
With this information, you can understand how your data is actually being used to develop a cost-saving strategy. But this information is not readily available in the cloud, as it is strewn across multiple accounts and buckets, and some data, such as when an object was last used/accessed, is not even reported.

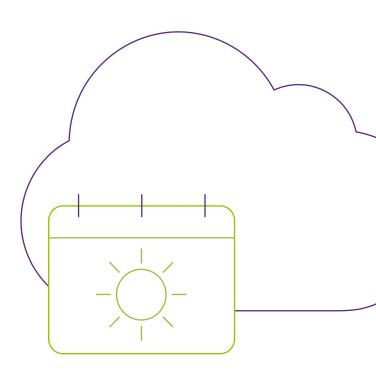


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Forecast Savings and Plan Data Management Strategies

Once you can see your true cloud picture, you need to understand your current cloud costs and establish a baseline. Tools that allow you to you examine "what-if" scenarios are valuable to see exactly how much you'll save with different data management policies. This information is critical to have **before** you start moving your cloud data. The ability to set policies on when your cold data will get archived across storage classes will help you accurately project your company's savings.





3

Archive Based on Actual Data Usage to Avoid Cost Surprises

If you want ongoing savings, you need to manage the lifecycle of your cloud data. That requires the right information about your data on which to base your decisions.

Last-modified time. Many cloud solutions base policies on when data was last modified (or written). But that doesn't identify the *most prevalent data usage pattern*—like when data is created once and then read frequently again and again making it hot data.

Using last *modified* time can result in erroneously archiving hot data to lower storage classes, which can reduce performance, cause disruption, and in some cases, break applications. It can also actually increase costs incurred by frequently accessing the hot data from a lower tier that has much higher access fees.

Last-accessed time. Basing management policies in the cloud on when data was *last accessed* (last read or written) is far more accurate than last *modified*.

How Accurate is Your Data-Usage Data?

Last Accessed:

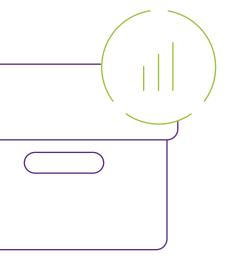
Reflects most accurate data usage

- Better access predictability
- More cost-effective and efficient archiving

Last Modified:

Causes hot data to be archived to lower storage

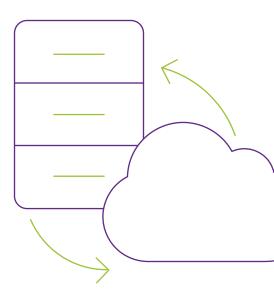
- Reduces performance
- Creates user disruption
- Breaks applications



Archiving based on *last-accessed* time of the objects, provides a more predictable decision on the objects that will be accessed in the future. This helps intelligently archive the data in a cost-effective and efficient way without disrupting users and applications. Decisions based on data access allow archiving to the most cost-effective storage classes, including S3 Glacier and S3 Glacier Deep Archive, without the risk of increased costs from accessing hot data in cold storage.

Simplify Migrations

Migrating data in the cloud is no one's idea of a good time. Migration tools need to simplify the time-consuming, error-prone task for you in the following ways:



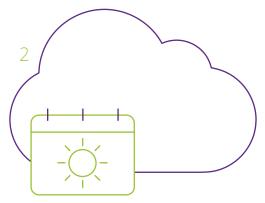
- **Easily pick your source and destination**—even if they're on different clouds—and create migration or copy tasks.
- Run dozens or hundreds of migrations in parallel, and automate with multi-level parallelism that exploits the inherent parallelism of each data set—key to finding the most efficient way to migrate data.
- Reduce the babysitting, by adjusting to network unavailability and other issues and retrying automatically, so you don't have to.

4 Ways to Control Cloud Storage Costs

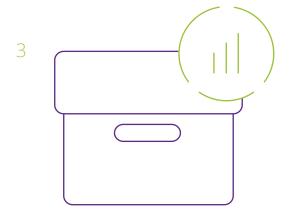
You can save 50% or more on your cloud storage costs by doing these four things.



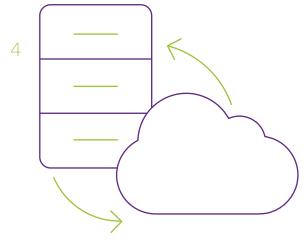
Gain Accurate Visibility Across Cloud Accounts into Actual Usage



Forecast Savings and Plan Data Management Strategies



Archive Based on Actual Data Usage to Avoid Cost Surprises



Simplify Migrations

Summary

Cloud budgets are straining, and the second biggest line item is storage. The biggest challenges to controlling these costs are poor visibility into cloud data and the complex multiple factors involved in managing it. This contributes to over 80% of organizations missing out on available cost-saving options in the cloud.

We've identified four proven ways to reduce cloud storage costs. And given the cloud's pay-as-you-go model, an analytics-driven, automated data management approach is the best choice to implement them—removing the cloud management complexity and keeping costs down.

Komprise Intelligent Data Management for Multicloud provides unprecedented cloud data insight within and across clouds. Because data usage patterns are in constant flux, its automated policies that change as access patterns change are a crucial capability. It enables data storage to be continuously optimized to dramatically reduce costs based on actual data use. It mitigates risk by simplifying the migration of data between multiple cloud providers and between on-premises and the cloud.

With so much data in the cloud, an analytics-driven approach to cloud data management is a strategic move to simplify your multicloud strategy and save substantial costs.

Learn More

Get instant insight into data across all NAS and S3 silos—from on-prem to the clouds. Sign up for a **Free Trial of Komprise in AWS** to assess your cloud cost savings and your data center storage savings.

