Unlock Data's Potential with a New Cloud Storage Strategy

Data volume is growing daily at organizations around the globe. IDC predicts that the collective sum of the world's data will grow to 175ZB by 2025.[1] Seagate's "Rethink Data" report shows that, just in the space of the next two years, enterprise data is expected to grow at a 42.2% annual growth rate. In lockstep with that growth: the need to harness data for analytics and intelligence that drive innovation and improve business outcomes.

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This massive data growth is happening against the backdrop of a hybrid and multicloud world, where companies use public as well as private clouds to house workloads. But although many organizations originally moved workloads to the cloud to save money, this premise may no longer hold up with a storage scenario. The reason: The cost of storing, reading, writing, and moving data is significant—and can lead to cost overruns and unpredictable charges.

Although these unforeseen charges challenge businesses, an independent study published by Hyperion Research found that total cost of ownership (TCO) is a top criterion for purchasing storage systems.

Organizations need flexibility and freedom to move data in order to unlock its true potential. Business leaders want to control the TCO for storage. Many IT leaders enter contracts with cloud providers under the impression that costs will remain consistent over time, but the need to use data in new ways, such as analytics, means that costs can spiral out of control. In addition, different organizational stakeholders often find new purposes for data—meaning that data costs add up even further. These additional uses require more applications to access more data—resulting in new access charges.

This white paper examines today's challenges involving data storage costs and how IT decision-makers (ITDMs) can solve those issues with a modern storage-as-a-service (STaaS) strategy.

Data Is Essential—But So Is Cost Control

Data is critical to business strategies. IT and business leaders need to extract value from legacy data and seamlessly create, store, move, and analyze new data to reveal insights and create new revenue streams. But TCO is a challenging issue when it comes to data storage.

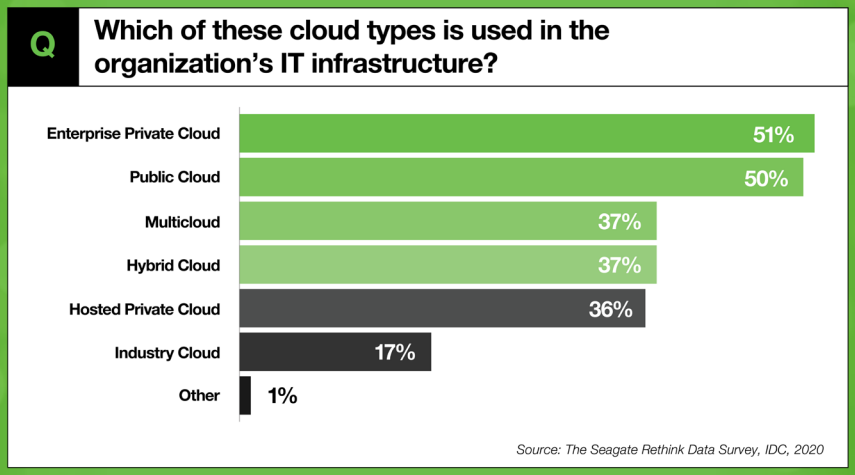
When organizations initially turned to the cloud for workloads and storage, IT leaders perhaps never imagined the potential for massive data growth and the new uses for data that have emerged today. But now many businesses struggle with how to store data in a cost-effective way. Cloud storage costs can add up, every second of every day, and become unpredictable with API extras and egress charges. Cost overages are common—and accurate cost prediction is difficult.

The TCO of cloud storage can be influenced by several factors, including:

- ✓ **Overall storage cost**
- ✓ **Read access fees**
- ✓ **Write access fees**
- ✓ **List and create operations fees**
- ✓ **Archive to higher tier retrieval cost**
- ✓ **Support costs**

These factors are highly unpredictable in many cloud storage offerings. The only factors that are truly predictable is that the amount of data will grow—and storage costs will rise. IT leaders cannot predict what new applications will be deployed in the future, and they cannot accurately assess the new ways business stakeholders will use stored data. Read/write access needs and patterns in the future are also difficult to predict.

IDC White Paper, sponsored by Seagate, Data Age 2025: The Digitization of the World From Edge to Core, November 2018



For example, businesses in many verticals are now using cameras, because powerful Internet of Things (IoT) sensors power multiple use cases. But as a camera collects data, that data scales quickly—and will only continue to grow. Additionally, that data often needs moving to another location for analysis.

Applications using artificial intelligence (AI) and machine learning (ML) are another powerful force changing the data landscape. Apps that rely on AI and ML are data-hungry—and are only predicted to grow in use and penetrate new business units. With disparate needs for data, many new business users will need to access and move data, adding to the cost of storage.

> With a composable cloud, businesses choose the appropriate cloud, from the best provider, that suits their organizational, application, and business needs.

CIOs and other ITDMs must make cost-related decisions frequently, and increasingly those decisions involve accessing and harnessing data. But they are also asked to do more with less as IT budgets are pinched. And fixed budgets do not typically allocate dollars for expenses related to data storage, since it is presumed to stay the same. CIOs also struggle to assign value to data, because until it has been activated, it can be difficult to know the potential return on investment (ROI). But essential to deriving any ROI or value from data is that it must be not only accessible but also cost-effective to store.

In this data-centric environment, IT leaders need a storage strategy that can help control the cost of data usage as it grows and as data collection and analysis tools scale to accommodate additional data.

Your Storage Requires New Thinking

Storage is not a one-size-fits-all formula, but businesses can now use separate clouds for storage and computing, since the costs associated with each are calculated differently and the uses also vary. This is a much more effective way to create a forward-facing storage strategy.

As businesses adapt a modern, long-term storage strategy, they should seek out the following essentials for storage:

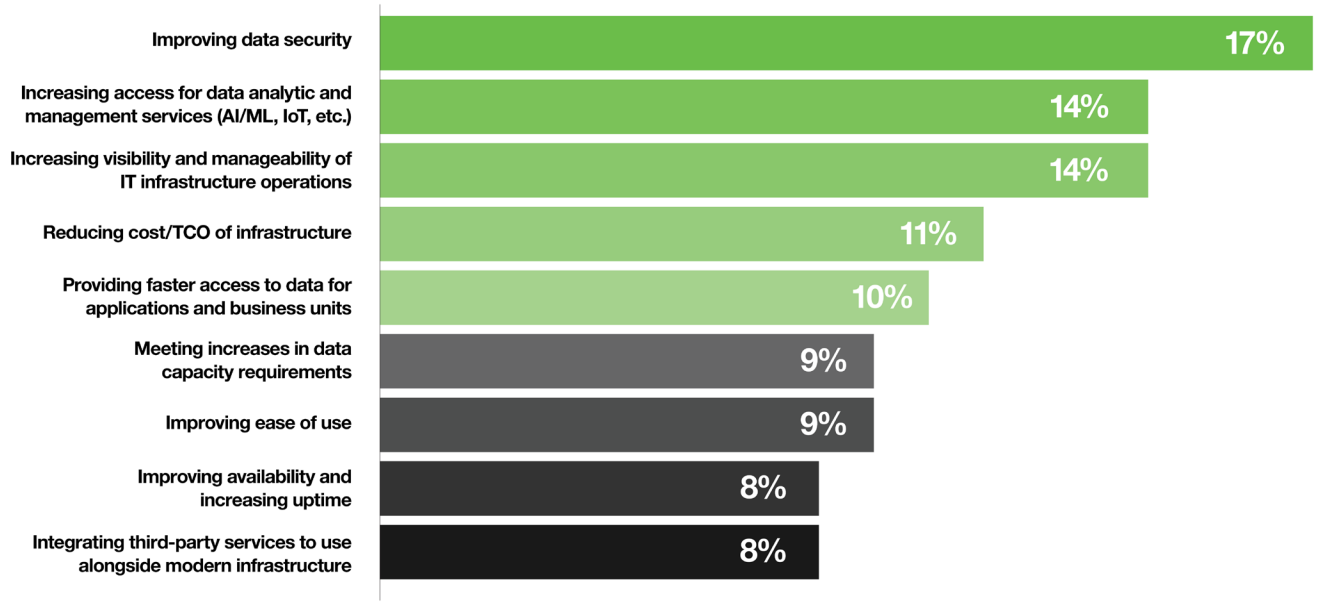
Data sovereignty. It's your data. Organizations need the ability to process and use it as needed. There are many benefits to data sovereignty, including the authority to place it, and move it when needed. Data sovereignty also means that businesses can share data if desired, on their own terms, if a situation warrants, without having to incur a charge. Organizations should not be saddled with long-term commitments and should be able to store more than planned. This could become necessary due to increases in the number of data sources, having more use cases enabled by compute advances and innovations, or the new potential to derive unknown value from your data in the future.

Freedom of movement. You should have control of where your data is located and where it will go. It should be easy to get it into and out of different locations. This should apply not just to moving data being used within a network but also to large volumes of data when a business needs to "lift and shift" them en masse. Moving large volumes of data in and out should be possible in a frictionless manner.

Bring your own anything. Flexibility is stifled (or even eliminated) if an organization can use only what a vendor offers and selects. Businesses need to work with a cloud provider that allows them to choose best-of-breed solutions.

Orchestration. Orchestration is about bringing together an enterprise's different data, resources, and applications to achieve a business need. Businesses need storage capabilities that arrange and coordinate automated tasks with consolidated processes or workflows. Orchestration offers a clear, simplified system for placing data where you want it to be.

Q Driving Factors in How Data is Stored



Source: The Seagate Rethink Data Survey, IDC, 2020

These essentials are possible only in a composable cloud environment. A composable cloud puts together the right cloud solution for storage, compute, and applications to fit an enterprise's exact function, cost, and scaling needs. With a composable cloud, businesses choose the appropriate cloud, from the best provider, that suits their organizational, application, and business needs. In other words, they strategically use separate clouds for different purposes.

> This could mean storing data in one cloud and then using another computing cloud on demand to activate the data in the storage cloud.

Organizations can now set up specialized storage and computing clouds that work independently, and they can choose to work with multiple partners to select the best-possible options. This could mean storing data in one cloud and then using another computing cloud on demand to activate the data in the storage cloud.

The most cost-effective choice for storage in a composable cloud environment is offered as STaaS. It creates a cost model that offers one set price without surprises and provides ease of interconnection to use other services such as computing and graphics processing units (GPUs) to activate data. This model offers the most efficient way to optimize data economics *and* truly harness the potential of all data.

A Data-Centric Cloud for Storage

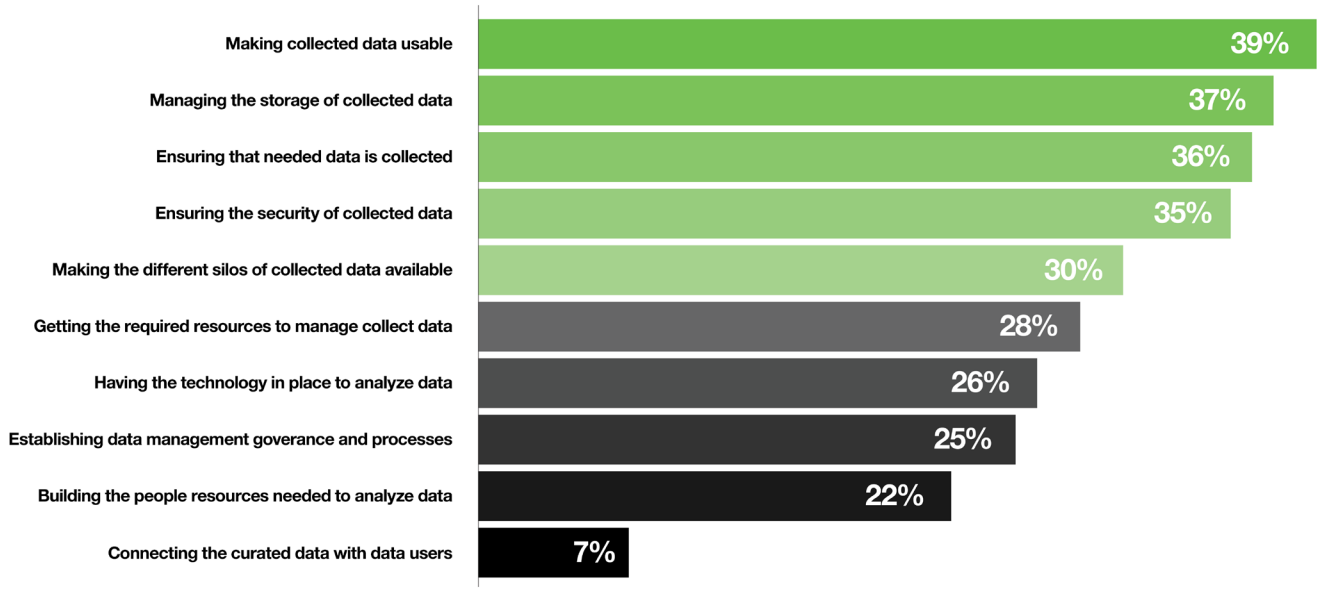
Data powers everything—and a cloud built specifically for data avoids cost overruns and unpredictability.

In many enterprises today, exabytes of data are even deleted because of storage costs. That's why storing data today requires a new kind of approach—one with sustained value and the ability to scale as data volumes grow beyond multiple petabytes, one that has predictable economics as data uses change.

> A modern cloud strategy requires a specialized cloud for storage that is compatible with overall data architecture.

A modern cloud strategy requires a specialized cloud for storage that is compatible with overall data architecture; that offers freedom of storing, reading, writing, and moving data without unpredictable charges and cost overruns; and that enables business and IT leaders to maximize the value of the information they create and hold.

Q Barriers to Putting Data to Work



Source: The Seagate Rethink Data Survey, IDC, 2020

A modern cloud storage platform should be simple, trusted, and efficient. It needs to offer straightforward economics through a single-storage-tier model. Because data is always growing and new uses are constantly emerging, IT leaders should know at the outset what their storage costs will be and what getting access to data will cost. With a near-constant need now to access and use data in different ways, IT leaders should seek out a data-centric cloud that won't charge egress fees if data needs to be moved outside that cloud.

The future of storage is STaaS within specialized clouds for storing data.

There are still many unmet needs when it comes to storing mass data in the enterprise. But the future of storage is STaaS within specialized clouds for storing data.

Seagate Lyve Cloud is a scalable and secure storage platform with predictable economics. It is simple, trusted, and efficient, with usage costs that are easy to understand. With its easy always-on storage model, there is one set price based on storage capacity during the usage period.

Click here to learn more about the Seagate Lyve Cloud offering.