

CLOUD OBJECT STORAGE IN YOUR
PRIVATE DATA CENTER: A NEW OPTION
TO MAXIMIZE THE VALUE OF YOUR DATA

Stratecast

F R O S T  S U L L I V A N

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INTRODUCTION

Businesses are betting their futures on data. More specifically, they are investing in solutions that leverage advanced analytics and artificial intelligence to gain market insights, introduce process efficiencies, and provide a competitive advantage. Because such analytics solutions require a steady torrent of diverse data points, businesses are augmenting their standard data sources (e.g., customer data, telemetry) with data culled from a growing list of nontraditional sources (e.g., social media, images, video, maps).

To store and access this new mix of structured and unstructured data, businesses are adopting object storage solutions. Consistent with their hybrid IT strategy, businesses are choosing to place some storage workloads in the public cloud; for example, data stores that are primarily accessed by cloud-based applications. But not all workloads are optimally deployed in the public cloud; for example, data that is primarily accessed by on-premises applications, or that is subject to strict data sovereignty or compliance requirements.

To handle such workloads, it makes sense for businesses to deploy cloud object storage in their on-premises private clouds. Yet, according to the 2017 Frost & Sullivan survey, only 17% of businesses have done so. For other businesses, economics are standing in the way of an on-premises cloud object storage deployment. Most commercially available solutions require a huge upfront investment for massive amounts of capacity. For companies looking to support a small analytics workload with a single data set, or to try out the option in one location, the investment is impossible to cost-justify.

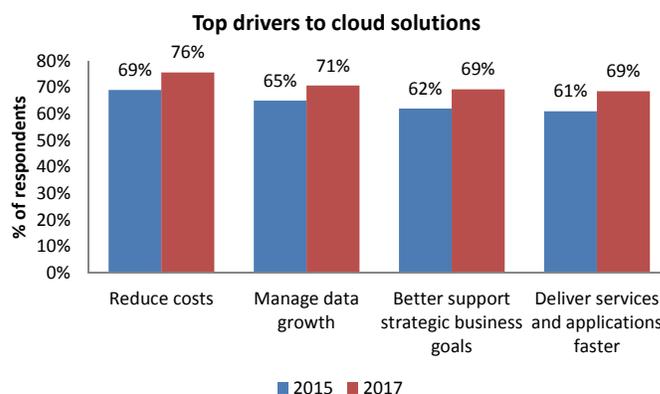
What businesses need is a premises-based cloud object storage solution that can start small and grow as needed, like IBM Cloud Object Storage.

HOW PREMISES-BASED CLOUD OBJECT STORAGE MEETS ENTERPRISE NEEDS

As they prepare their businesses to succeed in the digital era, IT decision-makers face growing pressure to do more with less. As shown in the chart, between 2015 and 2017, the percent of respondents citing the top four drivers as “important” has increased. Reducing costs remains the top reason to adopt cloud solutions, followed by managing data growth.

To meet these escalating needs, object storage solutions must deliver:

- **High availability**, to support the always-on pace of business
- **Scalability**, to handle exponentially increasing data volumes, without loss of performance
- **Security and compliance**, protecting sensitive data from breaches and loss



- **Reliability**, to ensure users and applications have access to the complete data set
- **Cost-effectiveness**, enabling the business to gain a positive return on investment
- **Ability to grow with the business**, to align investment with needs and to support business agility
- **Flexibility of deployment model**, to support hybrid IT.

Storage Workloads Optimally Deployed on Premises

The ability to flexibly deploy storage workloads in either the public cloud or on premises is important to efficient business operations. IT organizations are responsible for ensuring that each workload is optimally deployed on infrastructure that best supports requirements such as app performance, security, and costs. For that reason, certain storage workloads are optimally deployed not in the public cloud, but in the on-premises data center. These include:

- **Data subject to compliance regulations or data sovereignty** (e.g., personally identifiable information). While some public cloud providers have a broad network of data centers in the countries where you do business, not all can assure that your data will always remain compliant with local and national regulations.
- **Active archive** (e.g. analytics, business intelligence, and less frequently used data): As businesses seek to derive greater value from their data, they are increasingly tapping into archival storage. A premises-based object storage solution allows apps to leverage growing stores of archival data without loss of performance or availability.
- **Large data repositories** (e.g. large data pool for cloud-based applications or multi-media and large file storage): Business can drive efficiencies and lower the cost of secondary storage by storing large amounts of data on-premises. Although use cases support object storage both on premises and in the public cloud, to date, businesses have had to make unwelcome compromises in implementing their strategies. For example, for small storage workloads, they could gain cost efficiencies by deploying in the public cloud—while compromising on application performance and control. Or, they could deploy on premises in a system designed to support huge volumes—thus inefficiently investing in idle capacity.

COST-JUSTIFYING A PREMISES-BASED CLOUD OBJECT STORAGE SOLUTION

Businesses need an on-premises solution that delivers all the advantages of public cloud object storage, including cost-efficiencies. However, most object-based solutions in the market are designed for storage volumes greater than 400TB. That limits their attractiveness to many businesses, for reasons including the following:

- The large investment is impossible to justify when capital budgets are constrained and IT is looking for ways to reduce costs.
- Underutilized capacity represents a waste of resources—both capital costs for buying more than is needed, and operating costs for running the too-large system.
- The solutions do not fit into agile, hybrid IT strategies. It is not possible for a business to “try out” such a system to understand how cloud object storage can benefit the business.

The solutions make no sense for smaller businesses, or businesses that want to deploy object storage in a specific location or for a specific use case. However, a new offering from IBM allows businesses to deploy object storage in an on-premises private cloud, growing as needed. Features include:

- Low entry point (72 TB, single or 3 site; and 104TB for a dual site)
- Modular capacity increments allow businesses to start small and grow as needed, while continuing to leverage capital investments
- High reliability (11-15 nines, depending on configuration) and high availability (5-8 nines), ensuring that businesses never lose access to their data
- Full attributes of IBM Cloud Object Storage, including scalability, performance, security

On-Premises Cloud Object Storage: Benefits of Starting Small

For IT leaders long accustomed to compromise in cloud object storage, the new solution offers valuable benefits that extend beyond a single workload to the entire storage strategy:

- Low capital investment – The reasonable initial investment makes it easier to win budget support and approval from business leaders.
- Faster time to ROI – A quick early “win” provides momentum for additional storage modernization initiatives.
- Grow at your own pace – The business can ease slowly into new technology initiatives (such as IoT, advanced analytics, analysis of non-traditional data sources). Such initiatives are likely to be championed by a business advocate, such as marketing or customer care executives.
- Choose your infrastructure – Deploying cloud object storage on your own infrastructure allows you to choose from a fully configured and supported appliance from IBM; or deploy the software on any of the certified hardware options from the leading server vendors, including Cisco, Dell, HPE, Lenovo, Seagate, Supermicro and others.

WHAT TYPE OF CLOUD OBJECT STORAGE DO YOU NEED? A COMPARISON OF DEPLOYMENT OPTIONS

A hybrid cloud object strategy provides the flexibility to deploy each workload in the optimal deployment model. The following chart provides a quick look at different deployment options to help you determine which to consider, based on storage characteristics and business priorities.

Workload characteristic/ business priority	Public Cloud Object Storage	Large-scale On-Premises Cloud Object Storage	IBM Cloud Object Storage for Smaller Capacity
Local deployment	Maybe	√	√
Ease of meeting compliance requirements		√	√
Ease of meeting sovereignty requirements	Maybe	√	√
Small capacity (72TB – 400 TB)	√		√
Large capacity (400TB - exabytes)	√	√	
Budget flexibility	√	Large investment	Small investment
Start small and grow as needed	√		√
Scalable	√	√	√
Control over infrastructure choice		√	√

THE LAST WORD

Managing data growth remains an important priority, as businesses rely more and more on sophisticated analytics to drive business decisions. But just because data is growing overall doesn't mean that each storage workload operates at exabyte-scale. That's why businesses need the flexibility to efficiently and cost-effectively deploy data stores of any size where they make the most sense—whether in the public cloud or on premises.

With the introduction of an entry-level Cloud Object Storage solution for the premises data center, IBM is enabling businesses to implement their hybrid storage strategies without compromise. Businesses can cost-efficiently deploy secure, resilient, scalable IBM Cloud Object Storage to start with workloads as low as 72TB, and grow capacity as needed. For the ability to easily start with a single workload, or even for proof-of-concept, the new option delivers all the benefits of cloud object storage at a reasonable and flexible cost. It will be a welcome addition to any business serious about deploying an optimal hybrid storage strategy.

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