The need for hybrid cloud object storage

Managing exponential data growth to your business advantage

Cloud. Mobility. IoT. Analytics. Social. These waves of technological innovation are transforming entire industries and creating new business models, with a proliferation of data serving as both catalyst and outcome. In fact, 90 percent of all data was created in the last two years.¹

The problem is, data is like gold — extremely valuable if mined and analyzed properly but worth nothing when inaccessible. That is especially true today, when digital business imperatives rely upon easy access to data and its insights to create compelling customer experiences.

The challenge is compounded because data’s explosive growth is largely fueled by unstructured data, such as video, social media, photos and text. In fact, unstructured data is now typically 80 percent of the total data created, replicated and transmitted.² And by 2020, high-value data — that is, data worth analyzing to achieve actionable intelligence — will double.³

As data grows at high rates, even the most well-funded IT organizations are hard-pressed to balance cost and capacity needs with their traditional storage infrastructure.

Until recently, organizations had two choices for their data storage and management needs: traditional on-premises storage and public cloud. Each option has strengths but also limitations. For example, traditional on-premises storage offers control but can be expensive. As well, it was never meant to manage huge data volumes and lacks the simplicity and flexibility to accommodate web-scale IT. These inefficiencies increase cost and complexity, depleting resources that could be used for other digital transformation initiatives.

And while public cloud storage offers advantages such as scalability and reduced cost, it may not accommodate workloads that need on-site controls to meet compliance, data sovereignty and other business requirements.

Highlights

• How do you manage a tsunami of data that is largely unstructured?

• Hybrid cloud object storage delivers the flexibility, scalability and simplicity to manage unprecedented data growth.

• This innovative solution combines on-premises systems with cloud services, creating a fluid, dynamic infrastructure.
The answer? Hybrid cloud object storage, a new approach in which businesses deploy their data storage both on-premises and on the public cloud. This enables them to place data where it makes the most sense for their applications and services — today and as business requirements evolve.

Benefits include:

- The flexibility to choose which deployment options work best for your data workloads
- Highly adaptive object storage that you can scale and adjust on a workload-by-workload basis
- A streamlined, simplified object storage approach that uses the same technology both on-premises and on cloud, making data easier to manage
- The ability to manage unpredictable data growth while also balancing storage costs, location, performance and compliance demands across data sets and applications
- The creation of transformative customer experiences and new business models by storing data with relevant applications and services — facilitating interaction, analysis and innovation

In short, hybrid cloud object storage delivers the flexibility, scalability and simplicity to fuel digital innovation, while efficiently managing exponential data growth.

The new world of data: Accessible and collaborative
By its very nature, data is dynamic and requires flexible options. Typically, data falls into three categories:

- Frequently accessed (hot data)
- Infrequently accessed (warm data)
- Rarely accessed (cold data)

Your data’s optimal storage location can vary with its “temperature.” For example, hot data requires quick access and high availability. Cold data, accessed less frequently, can be stored in a slower, less expensive repository.

Healthcare and Life Sciences: An example of cloud object storage in action
A global leader in academic medical research, based in North America, uses an object storage solution as a repository of genomic cancer data that’s expected to grow to exabytes. The institute houses the data in a unified platform that is accessible to the scientific research community, helping researchers collaborate and discover cures more quickly. This transformative service, empowered by object storage, is at the confluence of genomics, big data analytics and precision therapies.

The highly scalable and secure object storage system, which could eventually move to a hybrid model, has already enabled the institute to store and share access to more than five petabytes of genomic cancer patient data with researchers around the world. This has democratized access to a growing knowledge system for cancer research, speeding discovery and fostering new insights for precision medicine and ultimately better patient care.

Yet just like the weather, data fluctuates. It often migrates between categories, with hot data cooling down and vice versa. A flexible, modular hybrid cloud object storage model enables you to move your data to the most optimal storage platform. To simplify management, data moves are dynamic and governed by automated policies. As well, a hybrid object storage solution offers impressive results across numerous other scenarios, as listed below.

Active archive. Keep content accessible with a scalable, security-rich, always accessible data archive.

- Real-time access to entire data set
- Strong reliability and availability to provide continuous access to data even during site outages

Enterprise collaboration. Fuel workplace productivity across the globe with security-rich, distributed access to valuable content.

- Easily managed storage costs and security
- Access to global data provided through a variety of platforms
Storage as a service. Deliver new levels of storage capacity and availability with carrier-grade security.

- Reduced storage management costs and complexity
- Efficient scaling of system to customer demands
- Easy integration of management into existing workflows

Content repository. Entrust business-critical data to a reliable, scalable, safe and security-rich storage platform with built-in fault tolerances.

- Storage of a single digital copy of digital assets
- Content accessed globally
- Content efficiently managed

Backup. Scalable backup and always-on data availability for dependable recovery and security at lower infrastructure costs.

- Efficiently distributed backups across sites
- Security-rich data at rest without replication
- Restoration and recovery from disasters faster

Making the case for hybrid cloud object storage

When strengthening your business case, consider the following hybrid cloud object storage attributes:

<table>
<thead>
<tr>
<th>Flexibility</th>
<th>Scalability</th>
<th>Simplicity</th>
<th>Security</th>
<th>Reliability</th>
<th>Business value</th>
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</thead>
<tbody>
<tr>
<td>Deployable on-premises, in the cloud or a combination of both</td>
<td>Scales from exabytes to zettabytes</td>
<td>Less complex and costly than traditional storage, more efficient and easier to manage</td>
<td>Carrier-grade security</td>
<td>Highly reliable on-premises and in the cloud</td>
<td>Store data where it makes sense for applications and services—extracting more value from your data</td>
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Hybrid cloud object storage empowers you to combine the best of on-premises and cloud storage—delivering the flexibility, scalability and simplicity required to unlock your data’s business value.
Why IBM?

IBM® Cloud Object Storage provides organizations the flexibility, scalability and simplicity required to store, manage and access today's rapidly growing unstructured data in a hybrid cloud environment. Our time-tested solutions turn storage challenges into business advantage by reducing storage costs while reliably supporting both traditional and emerging cloud-born workloads for enterprise mobile, social, analytics and cognitive computing. IBM Cloud Object Storage is built on technology from object storage leader Cleversafe, acquired by IBM in 2015.

Some of the world's largest repositories rely on us, and we are recognized across the industry:

- Gartner has given IBM Cleversafe dsNet the highest score in the overall use cases in the Object Storage Critical Capabilities report
- Cleversafe storage solutions are 72 percent less expensive than equivalent Redundant Array of Independent Disks (RAID) solutions
- IBM is ranked as the overall leader in hybrid cloud by TBR

We welcome the opportunity to learn about your specific storage needs and requirements. Our skilled and experienced team of hybrid cloud storage specialists is ready to take your call. Let's connect and explore the possibilities together.

For more information

To learn more about IBM Cloud Object Storage, call 1-844-95-CLOUD (Priority code: Cloud) or visit:
ibm.com/cloud-computing/infrastructure/object-storage

References