Enterprise Strategy Group by TechTarget

ECONOMIC VALIDATION

Analyzing the Economic Benefits of Wasabi Hot Cloud Storage

Public Cloud Data Storage Offering Straight-to-Cloud Capabilities for Multiple Workloads, Including Data Protection

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Introduction

As enterprise data increases in footprint, sources, and attack vectors, the complexity of data storage and protection can grow exponentially. As hybrid data ecosystems become the norm, many companies use public infrastructure clouds to store offsite copies of their backup data but quickly find it to be costly and cumbersome, especially when recovery is needed. TechTarget's Enterprise Strategy Group studied Wasabi Technologies and found that it offers an object-based storage service that provides effective straight-to-cloud backup storage that can reduce or eliminate costly on-premises storage costs, simplify administration, and create a data protection mindset that increases data availability and recoverability. This report details the results of an analysis of the economic benefits of using Wasabi.

Challenges

As modern organizations increase their dependency on cloud-based storage, they often find that cloud environments come with their own set of challenges. Enterprise Strategy Group (ESG) studied the challenges customers face with storage and found these to be consistent across most customers:

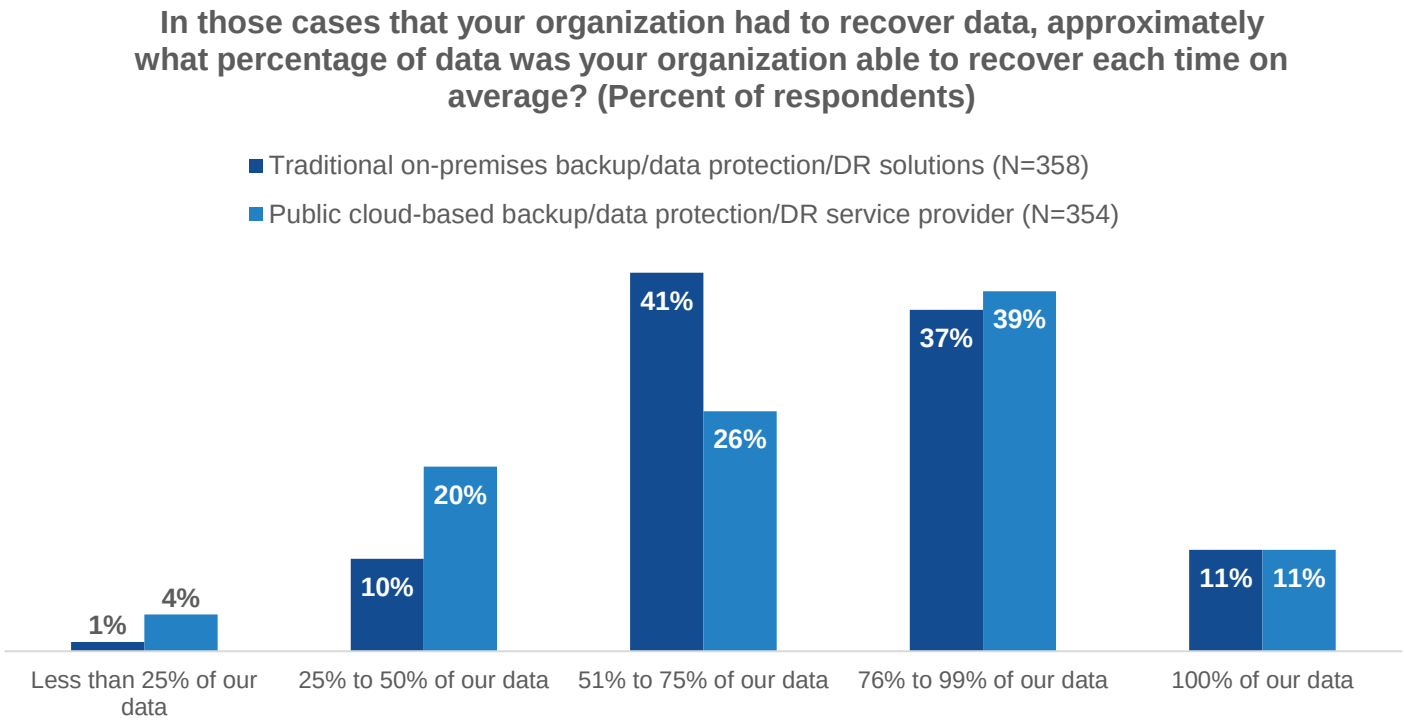
- **Mitigating the risk of ransomware.** Companies must operate under the assumption that they will be hit by successful ransomware attacks. It is no longer a question of *if*, it is a question of *when*. Storing data in a way that minimizes the chance of successful attacks while guaranteeing data recoverability is a challenge that few organizations can meet.
- **Likelihood of recoverability.** The cost and disruption of recoverability testing often limit the depth of testing strategies. Additionally, as organizations become more spread out, disparate systems and data locations make recoverability testing more challenging.
- **Cloud storage costs.** Most cloud storage pricing models are hard to understand, harder to predict, and often influenced by hidden, unknown, and heavy egress fees and API costs that can make forecasting costs impossible. Often referred to as a "hyperscaler tax," these fees can lead to convoluted cost structures that frequently require consulting help just to decipher monthly cloud storage bills.
- **Storage scalability.** Traditional onsite storage is subject to forklift-style upgrades that take quite a bit of time and require capital outlays that create a stair-step model of overprovisioning, and then slowly utilizing capacity. Traditional storage also requires provisioning for the highest possible peak demand, often months in advance. Many cloud or hybrid solutions require contracts that limit flexibility while on-premises storage solutions take months to plan, procure, and deploy new storage.
- **Physical security.** On-premises storage systems can be targets for people with illicit intent, including disgruntled employees, and are at risk of network-based attacks.
- **Compliance.** Many industries and insurance companies require certain levels of compliance in order to store data. It can be costly and complex to satisfy and report these requirements.
- **Complexity in storage.** The recent shift to hybrid workforces has created the need to secure data from and make data available to thousands of locations. This complexity creates environments that inject uncertainty into data protection and disaster recovery plans. ESG research found that 31% of organizations cite complexity as a top barrier to building a modern data platform.[1]
- **Access to storage expertise.** Storage is becoming more complex as data sizes, types, and locations continue to increase. Today's environments require expert-level planning and administration to securely manage data needs in-house. These experts are hard to find and expensive to keep.

[1] Source: Enterprise Strategy Group Research Report, *Data Platforms: The Path to Achieving Data-driven Empowerment*, June 2023.

- **Downside of tiering.** Most cloud storage models require tiering to minimize the cost of data based on the expected availability needs of that data. These extra steps increase complexity, create data silos, and can incur extensive egress costs as data is moved between tiers.

These challenges inject uncertainty into the ability to assure business leaders that data can be fully, quickly, and economically recovered in the event of loss. ESG research found that less than half (48%) of on-premises-based backup systems were able to recover at least 75% of critical data, while only 50% of companies that rely on public cloud-based backup systems could make the same 75% claim (see Figure 1).[2] ***Organizations need a solution that can ensure recoverability in an efficient and cost-effective manner***.

Figure 1. Only 11% of Organizations Were Able to Recover 100% of Their Data in Recovery Events



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

The Solution: Wasabi Cloud Storage

Wasabi's Hot Cloud Storage is a fast, fully featured, easy to use, secure, and very cost-effective S3-compatible cloud object storage service. When this analysis was being prepared, the Wasabi service was being used by over 60,000 organizations across multiple industries and more than 100 countries to store exabytes of data in 13 data centers or regions in North America, Europe, and Asia (see Figure 2).

[2] Source: Enterprise Strategy Group Research Report, *Cloud Data Protection Strategies at a Crossroads*, August 2023.

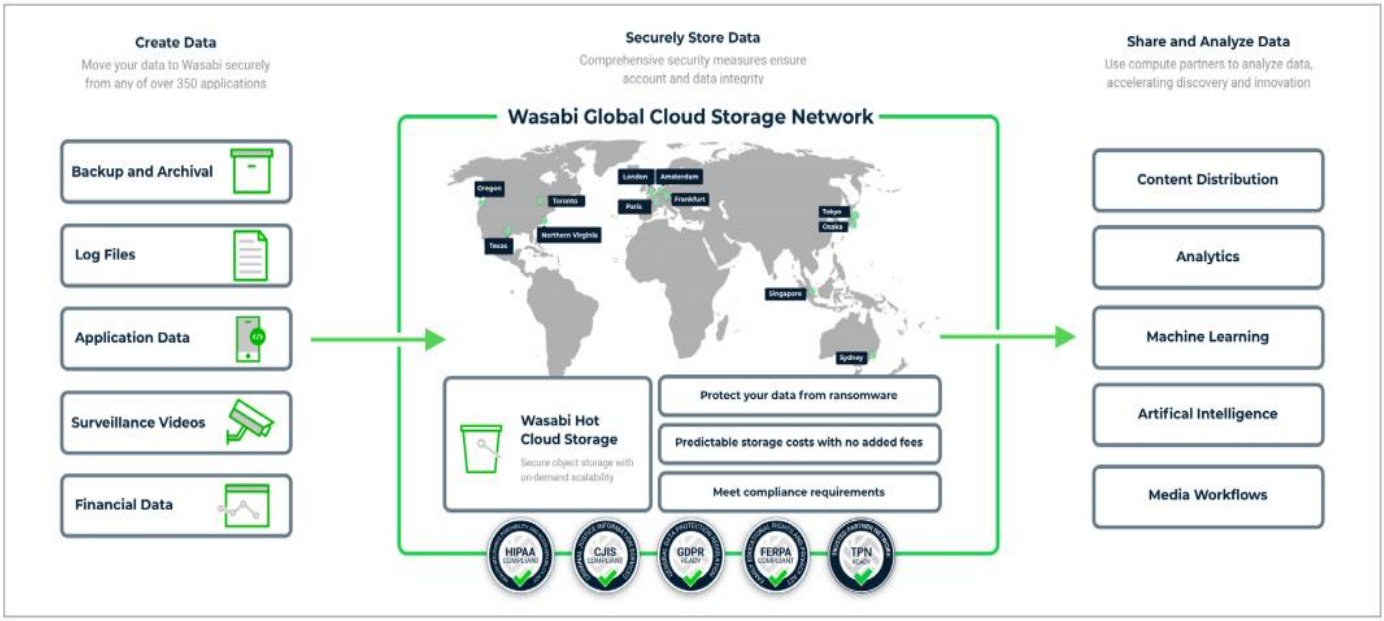
Wasabi describes its service as faster than other public cloud object storage offerings and stresses that it provides "instant-on" or millisecond access to data, all while keeping an extremely low pricing structure. In addition to backups, the service is being used to store data for analytics, application development, content delivery, surveillance, IoT, and AI/ML applications.

Alongside its low cost, the service has two other distinguishing features: It comprises only one tier of service, and its usage fees are based solely on the amount of data being stored. Wasabi does not charge for data egress, API calls, and other fees that are common in other cloud storage services and that heavily complicate the forecasting of costs. Wasabi works with partners such as Veeam, HYCU, MSP360, Dell, IBM, Veritas, and Commvault to maximize the positive impact that the lack of egress and API fees create.

In addition to backup storage, Wasabi also offers a version of the service tailored for storage of surveillance video- and file-based data. A self-service synchronization tool can automate data replication across multiple regions, and an account management tool is available for use by large enterprises or resellers of the Wasabi service. Other options include private network links from customers' on-premises or colocation facilities directly to Wasabi, as well as snowball-style, hardware-based data transfers when available network bandwidth is limited. Security features include object-lock immutability, multifactor authentication, multi-user authentication, and identity and access management.

Wasabi's service is integrated with multiple third-party applications, and Wasabi describes companies such as Veeam, HYCU, Commvault, Marquis, Milestone, Hanwha, Adobe, and LucidLink as "technical alliance partners."

Figure 2. Wasabi Hot Storage Service Overview



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Enterprise Strategy Group Economic Validation

Enterprise Strategy Group (ESG) completed a quantitative economic analysis to understand the business and technical impact organizations can realize by adopting Wasabi Cloud Storage. This is a proven method for understanding, validating, quantifying, and modeling the economic value propositions of a product or solution. The process leverages ESG's core competencies in market and industry analysis, forward-looking research, and technical/economic validation. ESG conducted in-depth interviews with end users to better understand and quantify how Wasabi has affected their organizations, particularly in comparison with previously deployed and/or experienced solutions. In addition to having experience with on-premises storage solutions, some of the customers interviewed had migrated their public cloud environments to Wasabi and were able to give detailed feedback on ongoing administration differences between the cloud solutions.

The qualitative and quantitative findings were used as the basis for a model that compares backup storage in a hybrid environment of on-premises and public cloud storage to an all-Wasabi environment.

Wasabi Hot Cloud Storage Economic Overview

Enterprise Strategy Group found that Wasabi Hot Cloud Storage provides its customers with significant savings and benefits in the following categories:

- **Cost-effectiveness.** Wasabi Hot Cloud Storage offers lower costs than both on-premises storage and competing cloud storage services.
- **Improved business agility.** Wasabi services are less complex to manage, have an extremely intuitive management interface, and were found to improve data availability for end users.
- **Improved security and recoverability.** Wasabi's storage service provides levels of protection against ransomware and data theft that exceed those implemented in typical enterprise data centers.

Cost-effectiveness

Most organizations maintain a 3-2-1 method of storing backup copies. This means that three copies of each backup are made, two copies are stored locally on different types of storage media, and one copy of the data is sent offsite.[3] Enterprise Strategy Group (ESG) found that Wasabi customers were able to maintain a backup storage ecosystem that either combined on-premises and offsite cloud storage or were fully cloud-based, while maintaining the assuredness of a 3-2-1 system in either case and utilizing the low-cost storage of Wasabi.

- **Lower storage fees.** The per-GB-month price of Wasabi's storage service is significantly lower than equivalent object storage services offered by major cloud service providers. When this report was published, the per-GB-month price of Wasabi's single-tier Hot Cloud Storage was 70% and 62% lower, respectively, than that of Amazon Web Service S3 Standard and Microsoft Azure Hot Blob.

> **"I'm not kidding when I say the price of Wasabi came in at 10 times less than any other competitor."**

- **Zero egress and other usage fees.** Further cost benefits in comparison to major cloud providers' storage services result from Wasabi's zero charges for data egress, API call, or other usage parameters such as number of objects stored, for which major service providers do impose fees. In the example scenario of a midsize enterprise used in ESG's cost model (see next section of this report), this policy accounted for 14% of direct cost savings achieved by replacing a mix of on-premises and AWS S3 storage with 50 TB of Wasabi storage.

[3] Source: TechTarget, "3-2-1 backup strategy," January 2023.

- **Reduced complexity and operating costs.** Customers interviewed by ESG repeatedly reported significantly reduced administrative overheads as compared with other cloud storage services, resulting from the overall simplicity and ease-of-use of the Wasabi service and its management tools, as well as the service's depth of integration with third-party products. In addition to reducing operating costs, this introduces the option to employ IT generalists to manage the Wasabi service, rather than the more expensive storage specialists required for competing services.

Improved Business Agility

The reduced complexity, lower management overheads, and highly predictable costs of the Wasabi service not only provides benefits to IT operations and IT budgets but also boosts end-user productivity, both directly and indirectly, and enable more IT resources to be directed to projects that directly increase enterprise agility.

- **Freeing of IT resources.** The reduced management overhead of the Wasabi service frees up IT resources. These resources can then be allocated to above-the-line projects that directly boost overall enterprise agility.
- **Boosted end-user productivity.** Wasabi handles extremely complex storage scenarios while simplifying the user interface, both on an administrative level for business units. Enterprise Strategy Group (ESG) interviewed customers and found that before Wasabi, many had incurred errors related to storage configuration and deployment that decreased end-user productivity. In addition to eliminating these end-user frustrations, ESG found that enterprise productivity in Wasabi environments was also increased by improved data integration and access for end-user applications. For the midsize enterprise used in ESG's cost model, these two qualities presented a $29,111 annual benefit.

> **"Admin time is only 25% of what you would have for Amazon Web Services."**

- **Predictable costs.** Wasabi's simple pricing model and lack of data egress or other charges contrast starkly with the complex pricing schemes of major cloud providers' object storage services. As a result, Wasabi's customers enjoy highly predictable costs, and do not experience the unexpectedly high or spiking monthly bills that have been repeatedly suffered by users of competing services. This enables enterprises to make more efficient use of their overall IT budgets and be more confident about spending on above-the-line activities.
- **Simpler and faster data retrieval.** Wasabi's single-tier service can significantly increase the effectiveness of business units by eliminating the lengthy searches for data that can occur when data is held in multi-tier storage services. Locating and accessing data is incrementally more expensive and slower for data held in the lower tiers of such services and can take days to complete.
- **Sustainability.** While comparing sustainability metrics between on-prem and cloud storage solutions is impossible due to the variability in on-premises configurations, ESG reviewed, and found credible, Wasabi-provided metrics that show Wasabi is up to 2.6x more energy efficient than the average on-prem object storage solution.

Improved Security and Recoverability

The costs imposed on enterprises by cyber-attacks continue to increase, and the average cost of a data breach is now estimated at over $4 million.[4] Wasabi's service offers high levels of security and recoverability, and its absence of charges for data egress removes a financial barrier that can limit the testing of recovery from backups.

[4] Source: IBM Corporation, *Cost of a Data Breach Report 2023*, July 2023.

- **Deeper and broader backup protection against ransomware.** After infecting an enterprise with malware, cyber attackers often wait several months before demanding a ransom. The attackers hope that this will prevent their targets from sidestepping the attack by simply restoring uninfected backup copies of data or server images. By waiting before presenting a ransom demand, the attackers assume that even the oldest uninfected backups will have been subjected to a scheduled deletion. The cost-effectiveness of Wasabi's services not only enables enterprises to defend themselves against this tactic by extending their retention policies and storing a longer history of backups than they could using competing services, but it also allows them to retain extended backup histories for a wider range of applications.

> **"No matter what happens, we have encrypted and protected assurance that we can recover from any event."**

- **Immutability, encryption, and compliance.** The Wasabi storage service incorporates high levels of protection against both data theft and ransomware, exceeding those implemented in typical enterprise data centers. All customer data stored by Wasabi is AES-256-encrypted by default, even if it was encrypted before delivery to Wasabi. The Wasabi service also provides an option to render data immutable using an S3 object lock command to protect it against ransomware or accidental deletion. Wasabi's service is delivered from data centers certified for ISO 27001, PCI DSS, and the U.S. SOC 2 frameworks. The service also complies with multiple other standards and regulations, such as the U.S. HIPAA and HITECH frameworks for the storage of health records.
- **No-fee recoverability testing.** A backup is not a backup if it does not work. Wasabi's service enables enterprises to test their data recovery from backups to an unlimited extent without suffering any data egress or transfer fees. This contrasts with conventional cloud object storage services, for which recovery testing can generate significant data access fees. In the modeled scenario ESG created for the analysis in this report, accessing 10 TB of backups from AWS S3 for recovery tests each month incurs egress fees of $9,460 per year.

Enterprise Strategy Group Analysis

Enterprise Strategy Group (ESG) created a modeled scenario to calculate the annual economic benefits of Wasabi's storage service. The scenario evaluated a company with $45 million USD annual revenue generated by 250 employees. In its current environment, the model company's total backup size is 50 TB, of which 25 TB is stored on-premises and 25 TB is stored in a major cloud provider's object storage service.

Total backup data size is assumed to grow at 3% per month, and the amount of backup data accessed each month is assumed to be 10 TB, or 20% of the total. The economic benefits quantified by the model are for the movement of the entire 50 TB of backup data from on-premises storage and public cloud to Wasabi's Hot Cloud Storage. The benefits total $89,642 from improved cost-effectiveness, $29,771 from boosted business agility, and a $337,062 from improved security and recovery. These benefits are shown in more detail in Figure 3.

Alongside the low per-GB-month costs of the Wasabi service, a major share of economic benefits results from the simplicity of the Wasabi service. Within the $89,642 total benefit for storage cost-effectiveness, $66,395 comes from the reduction in direct costs per GB-month. To calculate this saving, ESG assumed a cost of $0.22 per GB for on-premises storage and $0.0125 for public cloud storage. That second figure reflects a conservative assumption that the model enterprise would use only a middle-ranking and not the most expensive tier. However, even that middle-ranking tier still costs almost twice as much as Wasabi's service, per GB-month.

ESG assumed IT staff would spend 75% fewer hours managing the backup data after its transfer to Wasabi's storage service due to its simplicity of management. In addition, the model assumes a modest 10% reduction in the hourly burdened cost of the IT staff responsible for the management because the reduced management complexity enables the task to be completed by IT generalists rather than storage specialists.

The reduced complexity of the Wasabi service also carries forward to the benefits related to business agility. ESG assumed a 33% reduction in the number of human errors made related to storage management. For the benefit from improved integration with existing applications, ESG assumed those integrations would require 30% fewer developer hours to complete when using the Wasabi storage service.

The bulk of the calculated $337,062 benefit from increased security and recoverability comes from the reduction in the risk of data breaches that—as stated previously—currently impose average costs of $4 million-plus per breach. Because of the strength of Wasabi's security measures compared to those typically implemented for on-premises environments, ESG assumes an 80% reduction in the risk of a data breach. The model also assumes that the odds of retrieving data after any event requiring recovery from a backup would be 75% when backups were stored on-site and in public, and 98% when stored solely using Wasabi.

Table 1. Economic Benefits Calculated for the Model Scenario

Category	Savings When Compared to Modeled Organization
Cost Effectiveness	
Direct storage cost savings	$66,395
Elimination of cloud egress fees	$9,460
Additional savings after data growth	$1,305
Operations cost savings	$15,590
TOTAL	**$92,750**
Business Agility	
Reduced complexity, fewer storage errors	$17,160
Faster integrations	$12,611
TOTAL	**$29,771**
Improved security and recoverability	
Recoverability	$27,600
Reduced impact of Ransomware	$271,360
Compliance – bottom line impact of increased business	$33,750
Compliance – reduced need for information gathering	$4,352
TOTAL	**$337,062**

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Every organization's environment and requirements are different. ESG recommends that organizations consider the categories and potential benefits and savings outlined in this report, but also perform their own analysis to better understand the economic benefits of Wasabi's storage service.

Conclusion

Storage is consistently becoming more costly and complex each year. Organizations struggling to keep up with data requirements often find themselves having to cut corners to meet schedule or budget demands. This creates technical debt and risk to data recoverability and business continuity.

ESG analyzed Wasabi's cloud storage offering to understand how it can help companies meet their SLAs around backup storage. With powerful yet intuitive security features and near-unbounded scalability at one-fifth the price of the major cloud providers' object storage services, Wasabi Hot Cloud Storage is purpose-built to economically store massive data sets, data backups, data archives, disaster recovery, and many cloud-native applications.

For these applications, the economic benefits of the service identified by this ESG analysis are very sizeable. Wasabi is a lower-cost solution when compared to on-prem, public cloud, and hybrid solutions while providing functionality that sets it apart from others. In addition to low cost, the simplicity of the Wasabi pricing model stood out to ESG as a strategic benefit. The zero cost for data egress and API calls was called out as a substantial benefit by interviewed customers. In addition to eliminating the often shocking unpredictability in pricing found in most cloud storage environments, it enables IT teams to get on with more important tasks than worrying about or attempting to estimate egress volumes by, for example, allowing them to complete as much backup recovery testing as they see fit. In terms of business continuity, the policy has an even bigger role, enabling organizations to create and store more backups for longer periods of time, thus increasing the likelihood of recoverability in a data loss event.

ESG found that the performance and disruptive pricing of Wasabi enable forward-looking organizations to deploy their simplified hybrid cloud workflows in a solution that can easily grow with their business. ESG's interviews and financial models found substantial benefits for all studied organizations moving from legacy on-prem to Wasabi's modern high-performance architecture.

Given the substantial economic benefits determined by this ESG analysis, we believe organizations looking to enhance their data recoverability strategy, reduce their data storage complexity, and lower the costs of data storage should consider the use of Wasabi's service for the range of suitable applications described above.

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