

ECONOMIC VALIDATION

Analyzing the Economic Impact of HPE Alletra Storage MP B10000

Reduce Storage Costs by 31% While Increasing Agility and Resilience With HPE Alletra Storage MP B10000

By Nathan McAfee, Principal Economic Analyst
Enterprise Strategy Group

February 2025

Contents

Introduction	3
Challenges	3
The Solution: HPE Alletra Storage MP B10000	5
Enterprise Strategy Group Economic Validation	7
HPE Alletra Storage MP B10000 Benefits Overview	7
Improved Data Agility	7
Better Price/Performance Ratio	8
Increased Security and Reliability	10
Enterprise Strategy Group Analysis	10
Conclusion	11

Economic Validation: Key Findings Summary

Validated Benefits of Using HPE Alletra Storage MP B10000



**Storage costs reduced
by up to 31%**



**Storage admin hours
reduced by 43%**



**Data footprint reduced by
30%**



**Future-proof storage
strategy and lower TCO by
30% with HPE Timeless**

- **Improved Data Agility:** HPE Alletra Storage MP B10000 is a cornerstone of a digital maturity strategy. It brings visibility and flexibility that eliminates data silos, facilitates AI, improves achievement levels of storage-based SLAs, and reduces complexity throughout the storage ecosystem.
- **Better Price/Performance:** We found that the B10000 lowers storage costs while improving performance. The granularity available to apply the appropriate amount of capacity and compute resources eliminates the need to overprovision and creates a just-in-time view of storage planning. Customers interviewed report much higher efficiency gains for their storage FTEs.
- **Increased Security and Recoverability:** Customers shifting to the B10000 report a change in attitude and best practices, resulting in improved data resiliency, lowered downtime, and improved sustainability.

Introduction

This Economic Validation from Informa TechTarget's Enterprise Strategy Group focused on the quantitative and qualitative benefits organizations can expect by using HPE Alletra Storage MP B10000 to enhance their data storage strategy.

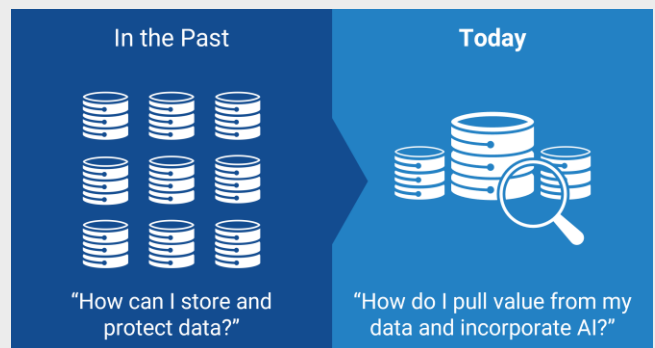
Challenges

The shift in data storage strategy from “How do we store it?” to “How do we protect it?” has been challenging for most businesses in the past few years. Recently, the dynamic shift to “How do I optimize storage to pull data from it and incorporate the abilities of AI?” has left many organizations trying to modernize their storage infrastructure at a rapid pace. Enterprise Strategy Group studied the challenges that organizations are having in modernizing storage and found these similar challenges across most organizations:

- **Escalating data growth.** Data footprints continue to grow for most companies, with the majority of organizations reporting that their total volume of data is growing 21% or more annually (see Figure 1).¹ However, according to Enterprise Strategy Group research, 56% of organizations report AI as a top growth factor for data user sizes (see Figure 2).² Based on that, we expect that trend to continue as companies explore the capabilities of AI. This growth results in decision points that create data silos, inefficiencies, and technical debt.
- **Data modernization challenges.** With 55% of organizations stating that data is their business and another 45% saying that data helps support their business,³ the need for organized and accessible data is clear. However, with only 13% of companies describing their data transformation initiatives as being “mature,”⁴ the path to modernization is not a simple task. Data modernization is not easy, as applications are changing to become hybrid and more data-centric.
- **AI data optimization.** Legacy storage is not optimized for analytics. Customer interviews show that most organizations find that structuring a data strategy to maximize the effect of AI is challenging, and the complexity injected in today's hybrid data environments makes optimization an even tougher task.
- **Storage performance requirements.** In a storage environment where workloads have varying service-level agreements (SLAs) for storage performance, keeping a close alignment between need and offerings is tough. The result is either unmet SLAs or overprovisioning that creates waste.

The Role of Storage Is Changing, Fast

For years, enterprise storage managers had the task of storing and protecting data. Recently, those tasks have been joined by the need to organize and prepare data stores to maximize the impact of AI. This shift is happening rapidly and is at the top of priority lists for most organizations.



¹ Source: Enterprise Strategy Group Research Report, [The Strategic and Evolving Role of Data Governance](#), July 2023.

² Source: Enterprise Strategy Group Research Report, [Navigating Data Governance in the Age of AI](#), September 2024.

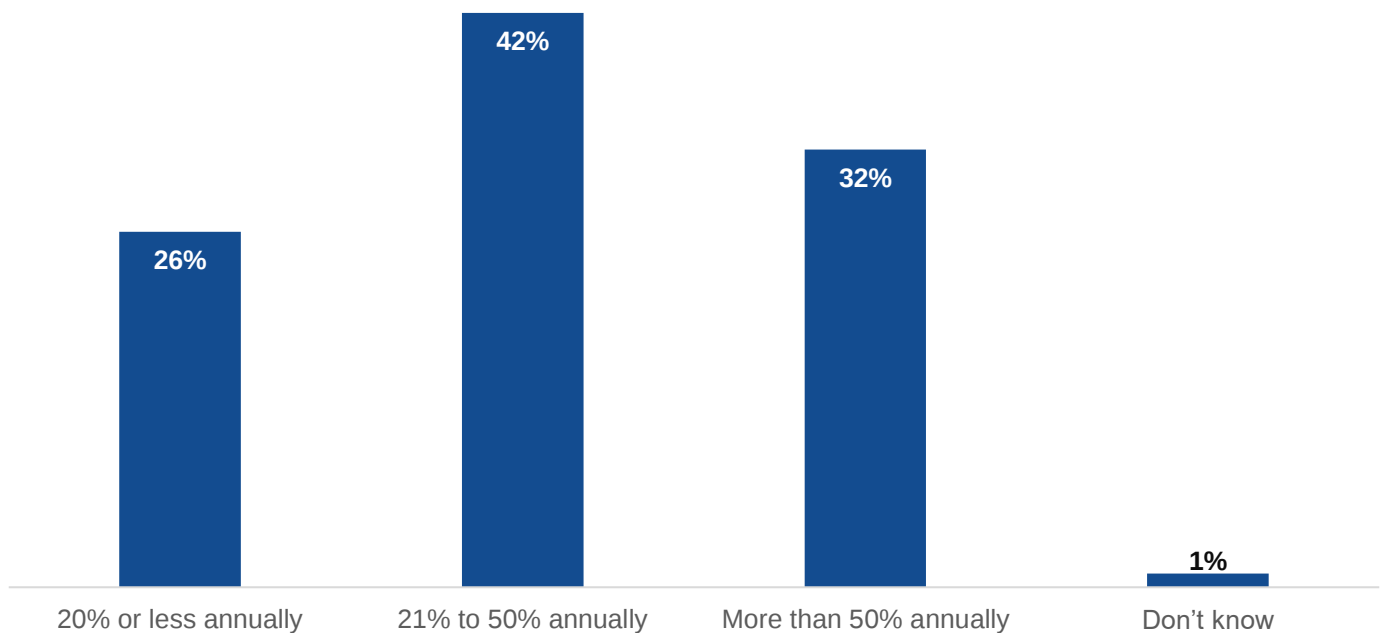
³ Source: Enterprise Strategy Group Research Report, [Navigating the Cloud and AI Revolution: The State of Enterprise Storage and HCI](#), March 2024.

⁴ Source: Enterprise Strategy Group Research Report, [2025 Technology Spending Intentions Survey](#), December 2024.

- **Cost of storage.** In addition to demands for more capacity, specific workload requirements often lead to hybrid storage ecosystems that raise the cost of storage or, even worse, create a complex billing structure where accurate storage costs are incalculable.
- **Technical debt.** Complexity, ever-changing requirements, and a lack of forward-looking strategy create high levels of technical debt, which squanders current IT budgets and stifles innovation.⁵
- **Sustainability.** We have found that most organizations are looking for ways to minimize the effect their operations have on energy usage and the creation of industrial waste. Storage is an energy-intensive operation, but most companies don't have easily achievable strategies to increase their storage-based sustainability.

Figure 1. Data Footprint Is Growing Rapidly

At approximately what rate do you believe your organization's total volume of data is growing annually? (Percent of respondents, N=376)

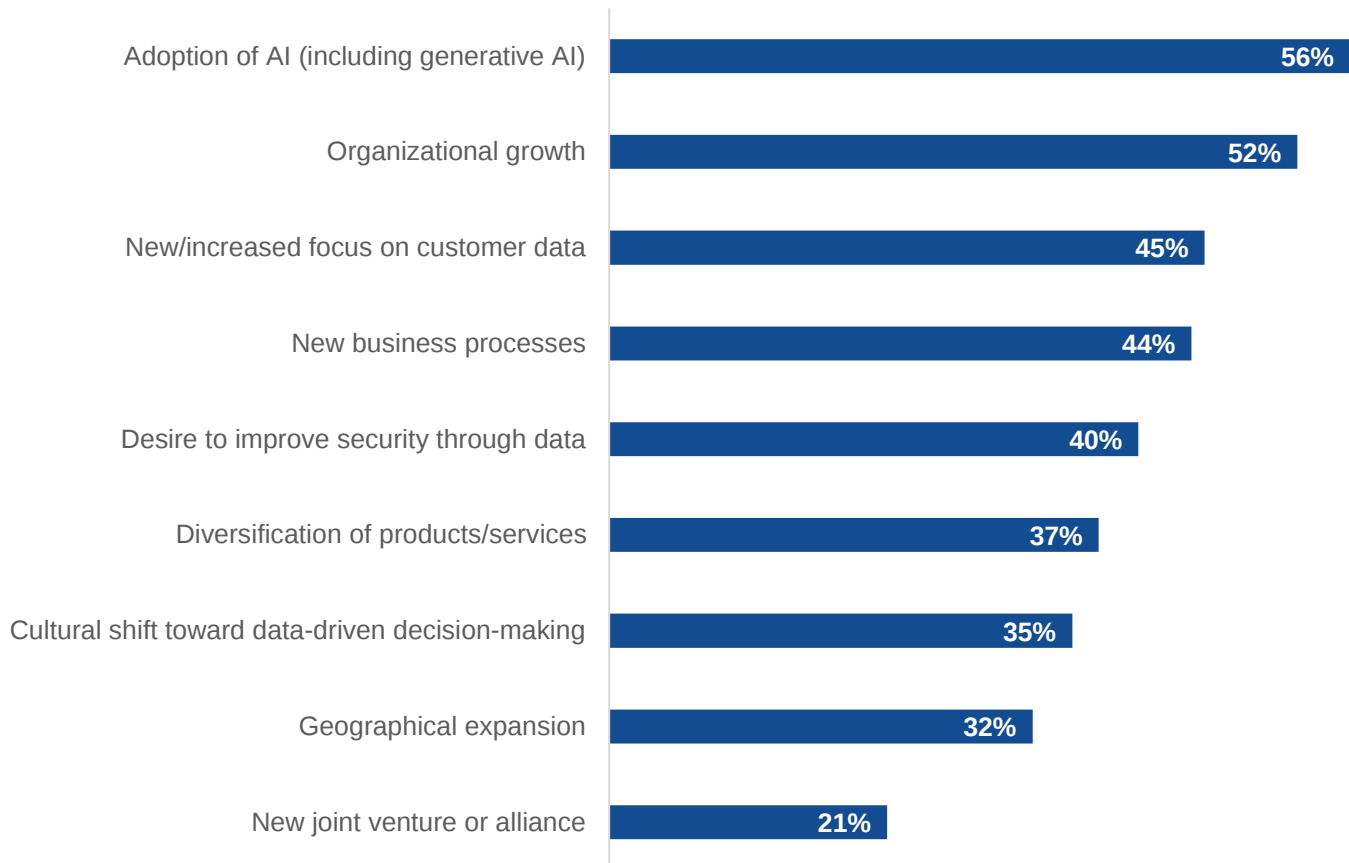


Source: Enterprise Strategy Group, a division of TechTarget, Inc.

⁵ Source: Enterprise Strategy Group Economic White Paper, [Does Your Organization Pay Long-term Costs for Short-term Decisions? Understanding Technical Debt](#), September 2022.

Figure 2. AI Adoption Is the Top Factor Driving Data User Growth

You indicated the number of your organization's data users has increased in the past 12 months. Why is this? (Percent of respondents, N=271, multiple responses accepted)



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

Storage modernization challenges are real and growing in complexity, and solving them is fundamental to the success of organizations' modernization journeys. However, many organizations are trying to overcome these challenges with traditional storage methods.

The Solution: HPE Alletra Storage MP B10000

HPE Alletra Storage MP B10000 reimagines enterprise storage, removing many of the roadblocks and compromises associated with legacy block storage architectures today. Storage system design hasn't changed significantly over the last 20 years. Legacy storage architectures typically consist of a pair of high availability (HA) controller nodes connected to dedicated drives via a midplane within a single hardware chassis. As CPU speeds have increased, and with the adoption of high-performant flash media, the mid-plane has become a bottleneck that leads to storage underperforming and not delivering its true value. Additionally, scaling the storage system to meet higher performance SLAs means adding new systems that can create silos and complex network topologies. The result is a higher level of burden on IT operators, unpredictable SLAs for application owners, and inefficiencies for support teams.

HPE Alletra Storage MP B10000 is designed to address these challenges, transforming how organizations consume and manage their data and storage infrastructure while delivering flexibility, agility, and cost optimization. The underlying hardware platform utilizes AMD EPYC embedded CPUs with multiple core options to address varying customer needs. This flexibility ensures that organizations can tailor the platform's performance and capacity to specific workload requirements, whether for high-throughput, compute-intensive applications or more modest storage demands. The AMD EPYC embedded processors, designed with a combination of high-core density, energy efficiency, and 128 PCIe lane support, are critical for optimizing performance, allowing for scalable and efficient storage solutions.

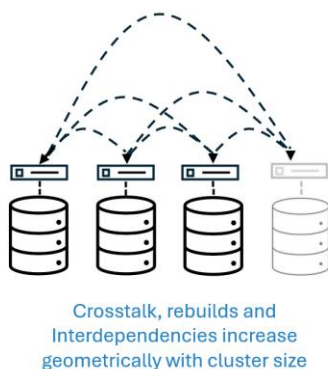
The key architectural design principles of the B10000 enable customers to:

- Future-proof infrastructure investments while enabling digital transformation. Customers can incorporate newer generations of technologies (e.g., CPU, network, and disks) into their systems without the need for expensive and time-consuming data migration or forklift upgrades.
- Focus IT resources on key strategic initiatives to derive value from data using AI rather than having to worry about day-to-day IT operations. AI Ops abstracts infrastructure complexity and improves operational efficiency by streamlining and automating daily IT operations tasks.
- Lower storage infrastructure spending by consolidating multiple silos into a scale-out cluster, improving resource utilization and reducing application licensing costs.
- Secure data by enforcing security best practices needed for governance and compliance.
- Prevent vendor/cloud lock-in and enable true hybrid cloud agility and scalability through a common cloud control plane from edge to data center to cloud.

The HPE Timeless Program for HPE Alletra Storage MP B10000 enables customers to keep their storage infrastructure modern without the need for costly and painful forklift upgrades. HPE Timeless customers receive a non-disruptive controller upgrade at no extra cost, all-inclusive software, a 100% data availability guarantee, a data efficiency guarantee, and a satisfaction guarantee. HPE believes that HPE Timeless customers can expect an average of 30% in TCO savings over a period of 8 years just by avoiding one forklift upgrade.

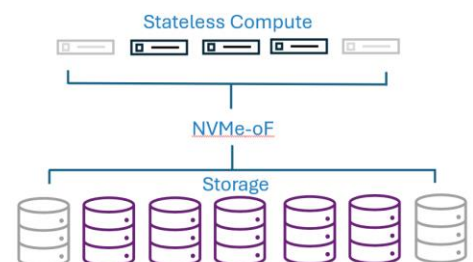
Figure 3. The B10000's Disaggregated, Shared-everything Cluster Architecture

Shared Nothing Architecture



X	Designed for scale	✓
X	Flat overhead/Linear performance scaling	✓
X	Independent scaling of performance and capacity designed for infinite lifecycle (no migration)	✓
X	Global namespace at scale	✓
X	No controller resource contention	✓
X	No rebuilds on server failure	✓

Disaggregated, shared-everything cluster architecture



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

Enterprise Strategy Group Economic Validation

Enterprise Strategy Group completed a quantitative economic analysis of HPE Alletra Storage MP B10000 to understand how it can help an organization better meet its IT and business goals.

Our Economic Validation process is a proven method for understanding, validating, quantifying, and modeling the economic value propositions of a product or solution. The process leverages Enterprise Strategy Group's core competencies in market and industry analysis, forward-looking research, and technical/economic validation. We conducted in-depth interviews with end users to better understand and quantify how the B10000 has affected their organizations, particularly in comparison with previously deployed and/or experienced solutions. In addition to having experience with multiple storage architectures and strategies, some of the customers interviewed had migrated their storage platform to the B10000 from competitive platforms and were able to give detailed feedback on ongoing differences between the solutions. The qualitative and quantitative findings were used as the basis for a simple economic model exploring the expected costs and benefits of HPE Alletra Storage MP B10000.

HPE Alletra Storage MP B10000 Benefits Overview

Enterprise Strategy Group's economic analysis revealed that the B10000 provided its customers with significant savings and benefits in the following categories:

- **Improved data agility.** Enterprise Strategy Group found that the B10000 can substantially improve data agility and accelerate organizational efforts toward digital maturity.
- **Better price/performance ratio.** We found that the B10000 helped both sides of the equation, lowering infrastructure and operations costs while improving performance.
- **Increased security and recoverability.** The B10000 brings a level of governance and best practices that ensures data can be effectively controlled and recovered.

Improved Data Agility

Traditional storage solutions often rely on “more” as the answer to most things. More capacity takes care of increasing demands and more compute power handles increasing complexity of dataflows. However, too much “more” leads to bloated storage systems and data with diminished value. Enterprise Strategy Group studied HPE Alletra Storage MP B10000 and found its approach to data created an ecosystem that was agile and in a better position for future operational success when compared with traditional storage.

- **Improved digital maturity.** There are many names for forward-looking data strategies (e.g., digital maturity, data modernization). Whatever the name, shifting a focus from storing data to an attitude of using and pulling value from data is a cornerstone of success for most organizations. Enterprise Strategy Group found that the B10000 can help a business achieve higher levels of digital maturity by eliminating much of the complexity that can come with changing data requirements while enabling rapid change.
- **Elimination of data silos.** With traditional storage systems, growth is achieved by adding more capacity to existing repositories or shifting data to another system or location. The result is data that is in silos.

Customers interviewed for this analysis explained that their storage environment before the B10000 was a mix of on-premises and cloud solutions, often spanning many different products. These data silos inflated costs,

“HPE Alletra Storage MP B10000 has helped change attitudes across the board. There has been a shift in the attitudes of our execs who now see storage as a strategic asset instead of a cost center. Our storage employees are happier because they are working on forward-looking products instead of kicking a legacy system down a narrowing path.”

led to duplicated data, injected complexity, and stifled the ability to effectively mine that data for value. We found that shifting to the B10000 helped organizations eliminate data silos while using the AI capabilities of the B10000 to position data workloads in the most effective location.

- Incorporation of AI-first capabilities.** Enterprise Strategy Group studied two main areas of impact for AI: the way it impacts the administration of data and the way it can help pull valuable insights from stored data. To understand how AI has changed the way data administrators work, we talked to HPE Alletra Storage MP B10000 customers. One thing that was brought up by every person interviewed is how AI helped them put each workload in its correct place. One explained, **“We used to have to look into each storage array to understand available storage and the performance impact of any change. Now, the B10000’s AI tells me where to put things and lets me know if the proposed change will have any performance impact on existing workloads.”** This change brought two measurable benefits: fewer full-time equivalent (FTE) hours needed to provision and deploy new requests for data capacity and reduced support costs and end-user dissatisfaction stemming from underperforming assets.
- Granularity in scaling.** HPE Alletra Storage MP B10000 enables companies to scale with granularity. Capacity or compute can be changed both at a platform level or for specific workloads. This greatly reduces the need to overprovision, as administrators in traditional storage environments might need to increase all resources to raise the one that is critical to a specific workflow.
- Improved SLA achievement.** During our interviews we asked participants about the different SLAs affected by the B10000. Those listed include performance, overall storage TCO, AI Ops, sustainability, resource utilization, and FTE effectiveness. When asked what was lost in the transition to the B10000, there wasn’t an example of a single SLA that was negatively impacted in the long term.
- Reduced storage complexity.** Each interviewee brought up HPE Alletra Storage MP B10000’s ability to reduce storage complexity as a strategic benefit. When asked how this benefit is recognized, the top answer was a reduction in human-caused errors. While examples provided ranged from simple mistakes to one where an e-commerce site experienced hours of downtime, we chose a conservative example to include in our business model. Using an average of 2.5 human-caused storage errors per month and an average remediation cost of \$10,000, we believe that the B10000 can reduce the occurrence of errors by 40% and the business impact of those errors by 15%, resulting in an annual savings of \$147,000.
- Business model flexibility.** We examined multiple variants of business models to understand the HPE Alletra Storage MP B10000 offerings. Customers report that HPE offers a variety of options to supplement or replace existing hardware in addition to HPE expertise in planning for hybrid environments. Additionally, the HPE Timeless model includes guarantees that simplify storage lifecycle strategies while also including guarantees around data availability, data efficiency, controller upgrades, and service levels.

“There used to be a lot of opportunities for human error in our storage operations. HPE Alletra Storage MP B10000 and its AI consistently injects best practices into our workflows and has virtually eliminated human-caused errors.”

Better Price/Performance Ratio

Each of the interviewees for this analysis reported a better price/performance ratio when comparing the HPE Alletra Storage MP B10000 to their previous environment. While none of them said they adopted the B10000 to lower their costs, every one of them reported a more effective TCO with the B10000. With TCO reduction estimates ranging between 25% and 62%, Enterprise Strategy Group calculated a conservative average of 31% to use in our financial models. Areas we studied that have an effect on the price/performance ratio included:

- **Lower price per GB.** We focused our conversations on what each specific customer considered important for gauging cost. The story that was consistent among many of them was the cost associated with trying to extend the life of a legacy storage system. One customer shared, **“It was less expensive for us to deploy an entirely new HPE Alletra Storage MP B10000 platform than it would have been to extend support on our legacy system for 3 more years.”** 60% of our interviewees shared the opinion that it was less expensive to migrate to the B10000, even with considering the positive benefits that came with modernizing storage. When looking at the metric of cost per GB of storage, we found the B10000 to be 11% lower than the blended average of the customers’ previous storage system. However, this savings number is artificially low because it does not take into account the 30% average reduction in data footprint that was reported by organizations transitioning to the B10000. Additionally, when you take into consideration the value of the HPE Timeless program and the ability for customers to get controller upgrades at no additional cost, customers can extend the life of their storage systems and get better value in the form of lower cost per GB of storage and an overall lower TCO. Based on our modeling and competitive comparisons, we believe that the HPE Timeless program can, on average, offer 30% lower TCO through new controller upgrades, eliminating expensive data migration and forklift upgrades without paying a premium to participate in the program.

“HPE Alletra Storage MP B10000’s ability to compress our data is incredible. In the past, we would always hear dedupe and compression rates and discount them as marketing messages. The B10000 has reduced our footprint almost 30% while increasing our data performance.”
- **Improved performance.** Every customer interviewed reported substantial increases in storage performance. Customer views we uncovered include, **“Our data throughput is reaching levels that we didn’t think were possible in the past”** and **“Our performance on our main line-of-business workloads has improved over 500% since we went to HPE Alletra Storage MP B10000.”** We believe that looking purely at performance increases only tells one side of the story and that the true benefit is the ability to ensure that each workload has the appropriate level of performance to meet their SLAs. This ensures that capacity isn’t wasted on overprovisioned resources.
- **Reduced data footprint.** We reviewed HPE’s provided metrics, which showed substantial reductions in data footprint by moving to HPE Alletra Storage MP B10000. We dug deeper into this, as most storage vendors make similar claims, and each customer interviewed confirmed a reduction in data footprint of, on average, 28%. Additionally, there was a reduction in physical hardware footprint with one sharing, **“As far as physical footprint, we went from 72U of hardware down to 17U, all while increasing our capacity.”**
- **Just-in-time matching between need and capacity.** We talked to customers to understand how HPE Alletra Storage MP B10000 enabled them to better plan capacity. We found that the flexibility to adjust compute or storage, on the platform or job level, gave them a level of control that was unachievable with legacy storage. One customer explained, **“The beauty of the B10000 is that we pay for exactly what we need. Our storage platform is now sized for exactly what we need with the assurance that we can grow the resources we need, when we need them.”**
- **FTE optimization.** Enterprise Strategy Group examined the effect of HPE Alletra Storage MP B10000 on multiple levels of FTEs, including storage admins, procurement teams, infrastructure admins, and support groups. We found administrative efforts of the storage and infrastructure admins to be 43% less compared to legacy storage admins. Additionally, we found the average salary 8% lower for FTE admin hours due to the reductions in complexity that empowered junior workers. These reductions are represented by a \$243,000 annual benefit for the sample company used in our financial model. When looking at support impacts, one interviewee shared, **“Our**

“We have been able to repatriate cloud resources because of the B10000’s flexibility and performance levels. Our cloud savings alone is more than the cost of our B10000 storage over 3 years.”

customer support team has lowered its interaction time by 15%. This leads to more customer touchpoints and happier customers.”

- **Elimination of licensing and tools.** There was no consistency across the eliminated licenses and tools of our interviewees, but 60% of them were able to eliminate hypervisor and other licensing that saved an average of almost \$100,000 per year.

Increased Security and Reliability

Securing data and ensuring recoverability are concepts that are increasing in complexity faster than most organizations can handle. In this process, we talked to a broad range of customers to understand how HPE Alletra Storage MP B10000 helped them improve their approach to security and reliability. They shared areas including:

- **Full system visibility.** Having a complete view of data that exists throughout an ecosystem was reported as being a fundamental cornerstone in improving overall security. We heard many stories that started with “We just didn’t understand...” about things that were found in their storage during the migration to the B10000.
- **Consistency in best practices.** The shift to the B10000 was more than a move to new hardware for the customers we studied, as we also saw a shift in attitudes and best practices. One customer summarized the shift as, **“Even if they tripled our budget, I don’t think I could have hired the level of expertise that HPE brought to our planning and deployment of our B10000 storage.”**
- **Improved data resiliency.** Every customer interviewed reported a higher level of confidence in the ability to maintain and recover data. While each of them reported no storage-related losses since they adopted the B10000, many of them reported a shift in their preparation for if an event happens. One shared, **“In the past, snapshots were sometimes too complex. We never had true assurance that we were recoverable. Now, backup is faster, less complex, and easy to test to ensure our data is recoverable.”**
- **Reduced downtime.** Enterprise Strategy Group estimates that storage-related downtime could be reduced by 50% for companies moving from legacy storage to the HPE Alletra Storage MP B10000. When asked about that estimate, each customer said our estimates were far too low. One shared, **“We used to be at 97% uptime. Now, since we have moved to the B10000, we have not had a single storage-based service disruption. This improvement has helped us bring in more revenue and improve our customer satisfaction.”** Using our 50% reduction estimate, this equates to a \$256,000 annual benefit, with a potential to be much higher based on customer input.
- **Improved sustainability.** Sustainability is an easy thing to strive for but a hard thing to effectively plan and implement. Customers interviewed shared examples of their power consumption being cut in half with HPE Alletra Storage MP B10000, while their hardware footprint was cut by two-thirds. Moving to the B10000 saved power and kept hardware from hitting landfills at the end of its lifecycle.

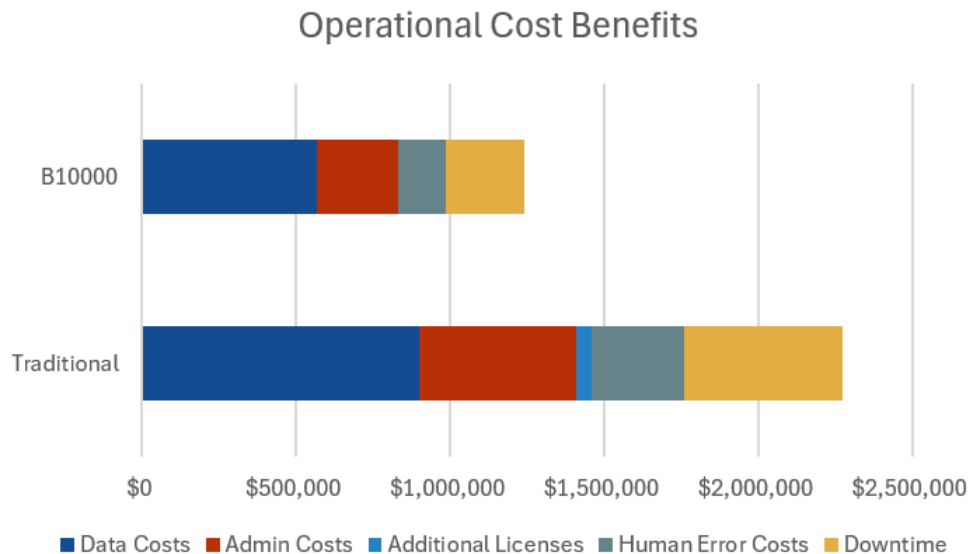
“We have reduced our storage-based power consumption by 60% with HPE Alletra Storage MP B10000. Additionally, because our hardware footprint is so much smaller, there are fewer components that will end up needing recycling.”

Enterprise Strategy Group Analysis

Enterprise Strategy Group leveraged the information collected through vendor-provided material, public and industry knowledge of economics and technologies, and the results of customer interviews to create a TCO/ROI model that compares the costs and benefits of HPE Alletra Storage MP B10000. Our interviews with customers who have recently made the transition, combined with experience and expertise in economic modeling and technical validation of storage ecosystems, helped to form the basis for our modeled scenario.

The metrics in this paper are based on a sample organization with 450 TB of storage generated by 1,500 employees. They have outgrown a legacy storage system that has been in life for six years and is supported by six storage and infrastructure admins. Operational costs are compared in Figure 4.

Figure 4. Comparing Operational Costs Between the B10000 and Traditional Storage



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

When examining overall storage TCO metrics, we analyzed customer-provided examples that varied in their previous ecosystems, level of storage maturity, and usage of stored data. We found a wide range of results, ranging from 31% to one example that saw storage costs lowered by almost 200%. To keep our views conservative, we used the low estimate of 31% for our findings. We believe that companies using storage as a backend for e-commerce can realize application performance gains. While we used a figure of 28% to calculate the benefits of performance gains, we were able to interview customers who saw up to a 500% increase in performance when switching their storage to the B10000.

Conclusion

Data growth rates are increasing each year, forcing IT organizations to figure out ways to stretch their data stores. However, the explosive growth in data types, density, and sources is adding levels of complexity to the challenge that is hard to overcome. Companies that try to expand on their legacy storage solutions are finding that the costs and level of expertise needed to keep up is beyond their reach.

Compounding this challenge is the impending effect of AI on data storage. In addition to adding multipliers to data growth rates, companies that have not modernized their data storage and structure to take advantage of AI will be at a competitive disadvantage when compared to those that made data modernization a priority.

HPE has created HPE Alletra Storage MP B10000, which offers a differentiated storage solution that enables customers to better align their storage strategy to their workloads. This comprehensive solution leverages the power of AI to improve productivity and shift management and operations to a more proactive approach. Enterprise Strategy Group found that the B10000 simplifies storage and the HPE Timeless program helps future-proof storage strategy by delivering non-disruptive controller upgrades.

Enterprise Strategy Group analyzed the effect that HPE Alletra Storage MP B10000 storage can have on organizations and found substantial benefits in agility, cost, performance, and data resiliency. We believe that the B10000 can be a key component in implementing a data modernization strategy and found the solution to eliminate much of the complexity that can come with advanced storage solutions.

If you are considering a change to your storage solution or are looking for a way to best prepare your organization for the storage effects of AI, we strongly recommend you explore what HPE Alletra Storage MP B10000 can do for your storage strategy.

©TechTarget, Inc. or its subsidiaries. All rights reserved. TechTarget, and the TechTarget logo, are trademarks or registered trademarks of TechTarget, Inc. and are registered in jurisdictions worldwide. Other product and service names and logos, including for BrightTALK, Xtelligent, and the Enterprise Strategy Group might be trademarks of TechTarget or its subsidiaries. All other trademarks, logos and brand names are the property of their respective owners.

Information contained in this publication has been obtained by sources TechTarget considers to be reliable but is not warranted by TechTarget. This publication may contain opinions of TechTarget, which are subject to change. This publication may include forecasts, projections, and other predictive statements that represent TechTarget's assumptions and expectations in light of currently available information. These forecasts are based on industry trends and involve variables and uncertainties. Consequently, TechTarget makes no warranty as to the accuracy of specific forecasts, projections or predictive statements contained herein.

Any reproduction or redistribution of this publication, in whole or in part, whether in hard-copy format, electronically, or otherwise to persons not authorized to receive it, without the express consent of TechTarget, is in violation of U.S. copyright law and will be subject to an action for civil damages and, if applicable, criminal prosecution. Should you have any questions, please contact Client Relations at cr@esg-global.com.

About Enterprise Strategy Group

TechTarget's Enterprise Strategy Group provides focused and actionable market intelligence, demand-side research, analyst advisory services, GTM strategy guidance, solution validations, and custom content supporting enterprise technology buying and selling.

 contact@esg-global.com

 www.esg-global.com