

White Paper

Keeping the Lights on vs. Funding the Future

Hitachi Vantara

Quantify the cost of delay and fund what's next.



Hitachi Vantara

Table of Contents

03	Executive Summary
03	The Budget Paradox in Enterprise Storage
03	Two Imperatives, One Budget
03	The Compounding Cost of Inaction
04	Quantifying the Cost of Deferred Modernization
04	Financial Cost: Support, Hardware and Energy
04	Operational Cost: Administration Overhead and Technical Debt
04	Strategic Cost: AI Readiness and Competitive Position
05	Building a Credible Modernization Business Case
05	Why Storage Modernization Requests Fail to Gain Approval
05	A Four-Pillar Justification Framework
06	The Hitachi Vantara Approach — Shift Spend From Maintenance to Innovation
06	Align Infrastructure Spending With Business Demand
06	Reduce Operational Complexity With VSP One
07	Reframing Storage Modernization
07	Next Steps: Learn More and Assess Your TCO
07	References and Further Reading

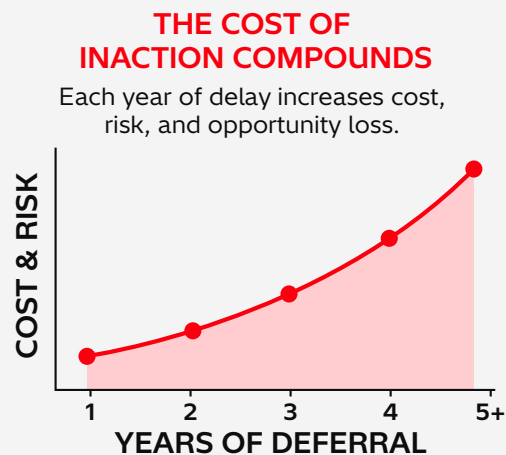
The Budget Paradox in Enterprise Storage

Two Imperatives, One Budget

These mandates share a single CapEx and OpEx budget. In that competition, operational continuity consistently wins — not because it generates more value, but because its failure mode is immediate and visible. An unplanned storage outage triggers incident response, SLA penalties and executive escalation within minutes. A deferred modernization initiative produces consequences that are slower, less obvious and easier to rationalize. The result, observed consistently across enterprise IT portfolios, is systematic underinvestment in the storage infrastructure that future workloads require.

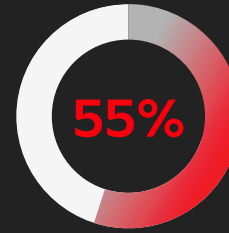
The Compounding Cost of Inaction

Deferred modernization is not a neutral position. It is the active accumulation of technical debt. Gartner's research indicates that for every dollar invested in digital business innovation, enterprises must spend at least three times that amount modernizing the legacy application and infrastructure portfolio that innovation depends on.⁴ Storage infrastructure is affected by this, too. Each year that a legacy array remains in production, its support cost increases, its security exposure widens and the gap between its capabilities and the organization's workload requirements grows wider.



Technical debt grows.
Flexibility shrinks. Risk rises.

Figure 1. The compounding cost of inaction.



of the average IT budget goes to maintaining existing operations. Only **19%** is allocated to building new capabilities.

Source: Deloitte Insights, "Reinventing Tech Finance," 2024



Quantifying the Cost of Deferred Modernization

The cost of postponing storage modernization falls across three categories. Each has different visibility in a standard budget process; together, they create a more complete picture of what staying on legacy infrastructure actually costs over a three-to-five-year horizon.

Financial Cost: Support, Hardware and Energy

The most directly measurable costs are associated with keeping legacy storage operational: support and maintenance contract renewals, hardware refresh expenditure, and energy and cooling consumption.

Quantify the cost of delay and fund what's next. Energy and cooling represent a substantial but frequently under-reported dimension of storage operational cost. Modern all-flash arrays deliver dramatically higher performance-per-watt than the disk-based and hybrid platforms they replace.

Operational Cost: Administration Overhead and Technical Debt

Legacy storage platforms impose significant administrative overhead on IT engineering teams. Provisioning, performance tuning, backup management, capacity planning and protocol maintenance on aging systems are predominantly manual processes. Automation capabilities are limited. Integration with modern orchestration, observability and FinOps tooling is inconsistent. Troubleshooting requires platform-specific expertise that is increasingly scarce as workforces evolve and institutional knowledge retires.

The larger cost is engineering capacity. Time spent maintaining aging or fragmented infrastructure is time unavailable for automation, architecture, data management and new workload initiatives. Modernization can therefore return not only budget, but also skilled IT capacity to the organization.

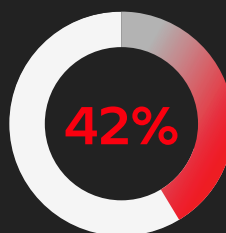
Strategic Cost: AI Readiness and Competitive Position

The business impacts of deferred storage modernization are the least visible in a standard budget review and potentially the most important to the organization's competitive trajectory. They show up as delayed capability deployment, constrained innovation throughput and reduced organizational agility.

AI and machine learning workloads present the clearest illustration. Large language model training, inference serving, real-time analytics and high-throughput data pipeline management are all storage-intensive operations requiring consistent high throughput, low latency, efficient data mobility across compute environments, and the ability to scale capacity without operational disruption. Storage hardware designed prior to approximately 2016 was not architected for these workload profiles.⁵ Organizations running AI initiatives on legacy storage infrastructure encounter I/O constraints that translate directly into longer training cycles, reduced GPU utilization, higher compute costs and slower deployment timelines.

Cyber resilience represents a third strategic dimension. The IBM Cost of a Data Breach Report 2025 documents the global average breach cost at \$4.44M, with organizations running legacy platforms in hybrid environments averaging \$5.05M per incident.⁶ Legacy storage frequently lacks the immutable snapshot, air gap and rapid recovery capabilities that current cyber resilience frameworks require.

The strategic impact extends beyond cost avoidance. Infrastructure constraints can delay AI initiatives, hybrid cloud projects and data-driven services. Every engineering hour spent on break-fix instead of modernization, or every new workload delayed by infrastructure limitations, represents business value deferred. The modernization case should therefore account for both the cost of operating the current environment and the opportunities that environment may be slowing down.



higher operational overhead for organizations on legacy storage vs. modernized platforms. Includes maintenance, licensing, and operational inefficiency costs across the storage stack.

Source: IDC, 2024

Building a Credible Modernization Business Case

Why Storage Modernization Requests Fail To Gain Approval

Storage modernization requests are frequently framed as technology upgrade proposals rather than business investment cases, and they fail on that basis. Stakeholders evaluating a capital request described as “replacing aging storage arrays” with no direct connection to measurable business outcomes will view it as optional. The organizational cost of approving the investment today must be clearly lower than the cost of delay — and unless that case is made with specific evidence, the default institutional response is to wait.

The modernization narrative for financial stakeholders resolves to a single proposition: **Reduce the cost and complexity of running storage today so the budget can shift from maintenance to innovation. Modernization is not additional spend — it is a reallocation from the past to the future.**

A FOUR-PILLAR JUSTIFICATION FRAMEWORK

Pillar 1: Current-state cost.

Calculate current spending on the storage infrastructure being evaluated. Consider not just the directly visible line items (hardware, licenses, support contracts), but also the fully loaded costs.

Pillar 2: Cost and risk of inaction.

Project what three to five years of continued operation on current infrastructure will cost, incorporating support contract escalation curves, anticipated hardware refresh cycles, and increasing cyber insurance premiums for legacy platforms.

Pillar 3: Modernization benefit.

Quantify what modernization can return to the organization. Measure resources recovered through lower administration, improved infrastructure efficiency, avoided support costs and reduced energy consumption. Then identify business capabilities enabled, such as faster deployment of AI or cloud workloads, improved infrastructure utilization and shorter time to value for data-driven initiatives.

Pillar 4: Financial model.

Present the modernization investment in consumption-based or as-a-service terms where possible. Storage-as-a-service models replace unpredictable CapEx refresh cycles with predictable OpEx aligned to actual usage. This shifts the budget conversation from a capital appropriation request to an operational efficiency improvement — a structurally more favorable position in most enterprise approval processes.

The Hitachi Vantara Approach — Shift Spend From Maintenance to Innovation

Modernization delivers the greatest business value when it changes both the infrastructure and the economics of operating it. Hitachi Vantara addresses both sides of the storage budget equation with Hitachi EverFlex and Virtual Storage Platform One (VSP One), helping organizations reduce the resources required to run today's environment while building the data foundation for AI, hybrid cloud and cyber resilience.

Align Infrastructure Spending With Business Demand

Hitachi EverFlex provides storage and other infrastructure through a consumption-based model that aligns spending more closely with actual usage. Instead of relying on large, periodic capital refresh cycles, organizations can shift toward predictable, usage-aligned operating expenses.

This approach can reduce overprovisioning and improve cost transparency through consumption reporting and forecasting. SLA-backed service commitments provide defined performance and availability outcomes. EverFlex customers have reported up to 50% savings in total cost of ownership compared with previous infrastructure models.

Reduce Operational Complexity With VSP One

VSP One provides a unified data platform across on-premises, edge and cloud environments. A consistent operational and management layer helps reduce the fragmented tools and platform-specific processes associated with heterogeneous legacy storage environments.

THE STORAGE BUDGET PARADOX

Two imperatives. One budget.

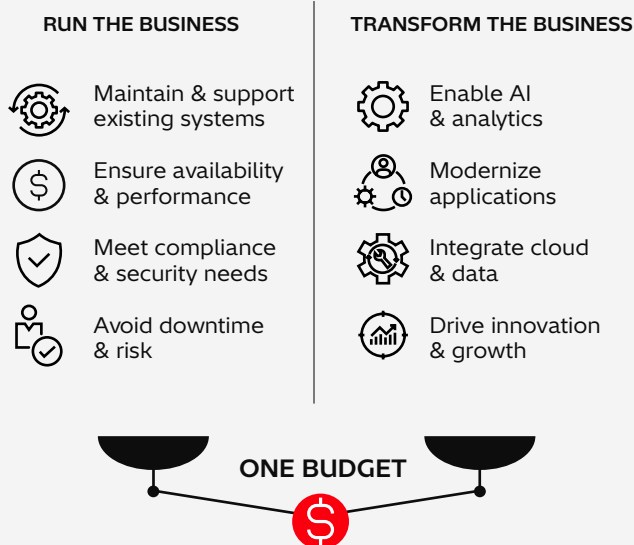


Figure 2. Addressing the storage budget paradox.

Unified management, intelligent tiering, automated data placement and lifecycle management can reduce manual administration and return engineering capacity to higher-value work. At the same time, VSP One supports the performance and data mobility requirements of AI, analytics and hybrid cloud workloads.

Cyber resilience capabilities, including immutable snapshots, air-gap protection and cyber vault architectures, further strengthen the modernization business case by integrating data protection and recovery capabilities into the storage platform.

Together, EverFlex and VSP One change the modernization equation. The objective is not simply to replace aging storage. It is to reduce the cost and complexity of running today's data infrastructure so organizations can redirect budget and engineering capacity toward the AI, cloud and digital initiatives that create future business value.



Reframing Storage Modernization

The most effective organizational response to this dynamic is to reframe storage modernization not as an infrastructure upgrade, but as the way to resolve the budget paradox itself. Reducing the operational overhead of running storage today directly increases the investment available for the initiatives that create future business value. This is a capital allocation argument, and it should be made in those terms to the stakeholders who control capital allocation decisions.

Hitachi EverFlex and the VSP One data platform are specifically designed to support that reallocation:

- Lowering TCO through consumption-based commercial models that eliminate unpredictable CapEx cycles.
- Reducing administrative burden through unified management and intelligent automation.
- Enabling AI and cloud workloads without disruptive replatforming.
- Building cyber resilience into the storage layer rather than around it.

The question organizations should be asking is not whether storage modernization is worth the investment. It is what continued deferral has already cost — in dollars, and in the revenue opportunities that never got the infrastructure needed to launch.

Next Steps: Learn More and Assess Your TCO

Learn more about [data modernization](#) and resilience on the Hitachi Vantara data modernization page. Use the [EverFlex TCO Assessment](#) to evaluate current storage infrastructure costs and the financial impact of modernization under EverFlex consumption models. And/or contact your Hitachi Vantara representative or visit hitachivantara.com/everflex to request an assessment.

About Hitachi Vantara

Hitachi Vantara is transforming the way data fuels innovation. A wholly owned subsidiary of Hitachi, Ltd., we're the data foundation the world's leading innovators rely on. Through data storage, infrastructure systems, cloud management and digital expertise, we build the foundation for sustainable business growth.

Hitachi Vantara

Corporate Headquarters
2535 Augustine Drive
Santa Clara, CA 95054 USA
hitachivantara.com | community.hitachivantara.com

Contact Information
USA: 1-800-446-0744
Global: 1-858-547-4526
hitachivantara.com/contact

© Hitachi Vantara LLC 2026. All Rights Reserved. All other trademarks, service marks and company names are properties of their respective owners.

Kubernetes is a registered trademark of the Linux Foundation. Gartner is a registered trademark and service mark, and Magic Quadrant is a trademark of [Gartner, Inc.](#) in the United States and internationally.

HV-BTD-WP-KTLO-9Jul26-A

References and Further Reading

The following sources inform the analysis and statistics presented in this white paper.

1. Deloitte Insights. "Reinventing Tech Finance: The Evolution from IT Budgets to Technology Investments." Deloitte, 2024.
2. Gartner. "Run, Grow and Transform the Business IT Spending." Gartner Research Note G00308477.
3. IT Convergence, citing IDC 2024 data. "Cost of Maintaining Legacy Systems vs. One Fully Supported." January 2026. itconvergence.com.
4. Gartner / Deloitte Insights. "7 Options to Modernize Legacy Systems." Moore, S. Referenced in Deloitte, "Reinventing Tech Finance," 2024.
5. SDxCentral. "How Legacy IT Systems Can Hold Your Business Back." October 2024.
6. IBM Security. "Cost of a Data Breach Report 2025." IBM Corporation, 2025.

Gartner does not endorse any vendor, product or service depicted in its research publications and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact.