Enterprise Strategy Group™
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ECONOMIC VALIDATION

Analyzing the Economic Benefits of IBM Storage Assurance

Remove Complexity From Storage Planning and Provisioning With IBM Storage Assurance and IBM FlashSystem

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Introduction

This Economic Validation from TechTarget's Enterprise Strategy Group focused on the quantitative and qualitative benefits organizations can expect from adopting the Storage Assurance consumption model for their organizational storage needs. Enterprise Strategy Group's validation reveals that IBM Storage Assurance is an extremely effective consumption model that provides access to IBM FlashSystem hardware and software.

Challenges

Demand for storage continues to grow at explosive rates, with 37% of organizations expecting their primary data to grow at a 31% or higher annual rate.[1] Enterprise Strategy Group studied the challenges that organizations are having in developing a long-term strategy to keep up with this demand and found these to be consistent across most companies:

- **Storage inflexibility.** Organizations trying to maintain their current systems too often find that their old drives are not upgradeable, out of supply, or not backward compatible. This means that growth forces a complete replacement of their storage ecosystem.

- **Cost uncertainty.** Changing prices and levels of availability for storage components hinder the ability to budget for storage growth. Enterprise Strategy Group found this especially challenging for storage systems over three years old as prices jump for older systems and maintenance.

- **Long budgeting and procurement processes.** Customer interviews found that procurement cycles have been wildly unpredictable over the past two years. One interviewee told us, "Our current lead time was about three months (time from order placed to storage installed), however, it has been twice that in multiple instances recently. We have had to overprovision to ensure we can keep above our demand levels."

- **Business disruption.** Storage failures, upgrades, and maintenance can cause business disruption. With each change or disruption comes a risk that is injected in the data storage strategy.

- **Need for modernization.** Rapid changes in workload requirements, data types and locations, and threat landscapes can overwhelm data storage that doesn't prioritize modernization.

- **Performance demands.** Environments that have changing storage performance demands can be especially demanding and too often result in the need to overprovision.

These challenges make the procurement of storage a very fluid problem. Adding storage using traditional purchasing models involves periods of overprovisioning by 40% (based on customer interviews) shown at point A, risk areas where storage demand and supply are very close to the same (point B), and critical times where demand outstrips the ability to provide storage (point C; see Figure 1).

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

Figure 1. Traditional Storage Provisioning Challenges
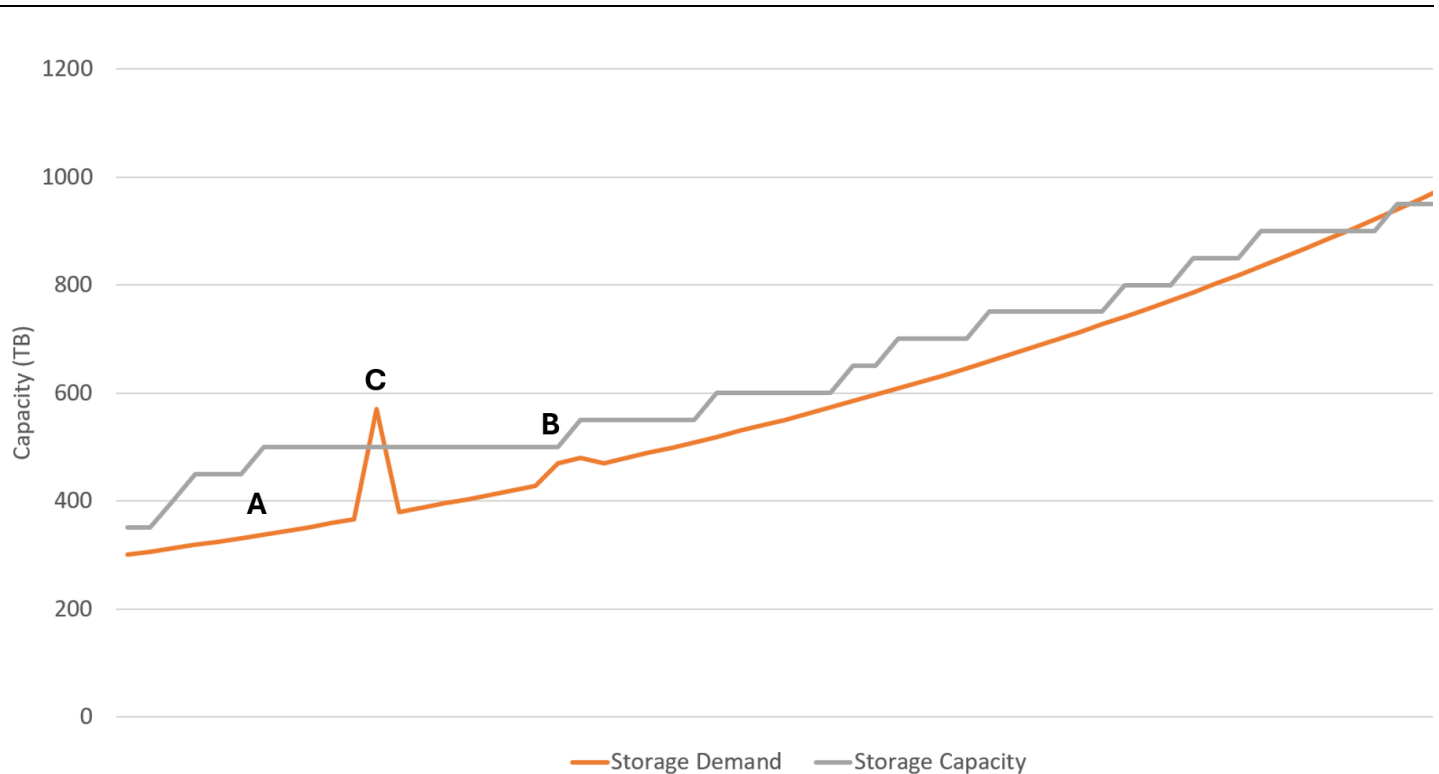
Business-critical workloads demand storage that is performant, cyber resilient, highly available, and flexible enough to meet changing requirements. Strategists and purchasing departments want storage that is easy to buy in a predictable and timely manner. Finance groups want storage that is cost-effective and cost-predictable. The industry needs a storage solution that satisfies all of these groups and removes the risk from the storage equation.

The Solution: IBM Storage Assurance

IBM Storage Assurance is a program that provides access to IBM FlashSystem enterprise-level storage while removing the complexity and risk that usually come with budgeting, procuring, maintaining, and supporting storage. By providing a series of commitments and associated remedies to guarantee the performance and availability of enterprise storage, IBM Storage Assurance is designed to alleviate the risks that typically come with a storage lifecycle.

Based on IBM FlashSystem hardware, software, and support, IBM Storage Assurance provides budget certainty and performance certainty with IBM's commitment that service-level agreements (SLAs) will be met throughout the life of the contract.

IBM FlashSystem is a primary storage platform that offers operationally resilient, enterprise-class storage to simplify the protection of your data and ensure mission-critical performance.

From IBM's unique FlashCore module—a computational storage device capable of analyzing ransomware attack patterns as they are being written—to the controller software that uses machine learning to detect real threats, to the fleet-wide observability software that can correlate threats across systems, IBM FlashSystem's suite of products and services provides energy-efficient, secure architecture and flexible purchasing options.

With IBM Flash Grid, IBM FlashSystem further simplifies storage management, optimizes workload performance, and promotes nondisruptive operations. IBM Flash Grid allows clients to manage storage systems as a highly available and independently scalable environment with the ability to move workloads without disruption between IBM FlashSystem devices.

IBM FlashSystem has integrations with all major hybrid cloud platforms, such as VMware, OpenShift, and IBM Power so you can protect your business' data no matter your operating environment.

As seen in Figure 2, IBM Storage Assurance offers all of the agility and reliability of IBM FlashSystem with the benefits of shifting to a consumption storage model.

Figure 2. IBM Storage Assurance is Built on IBM Storage FlashSystem
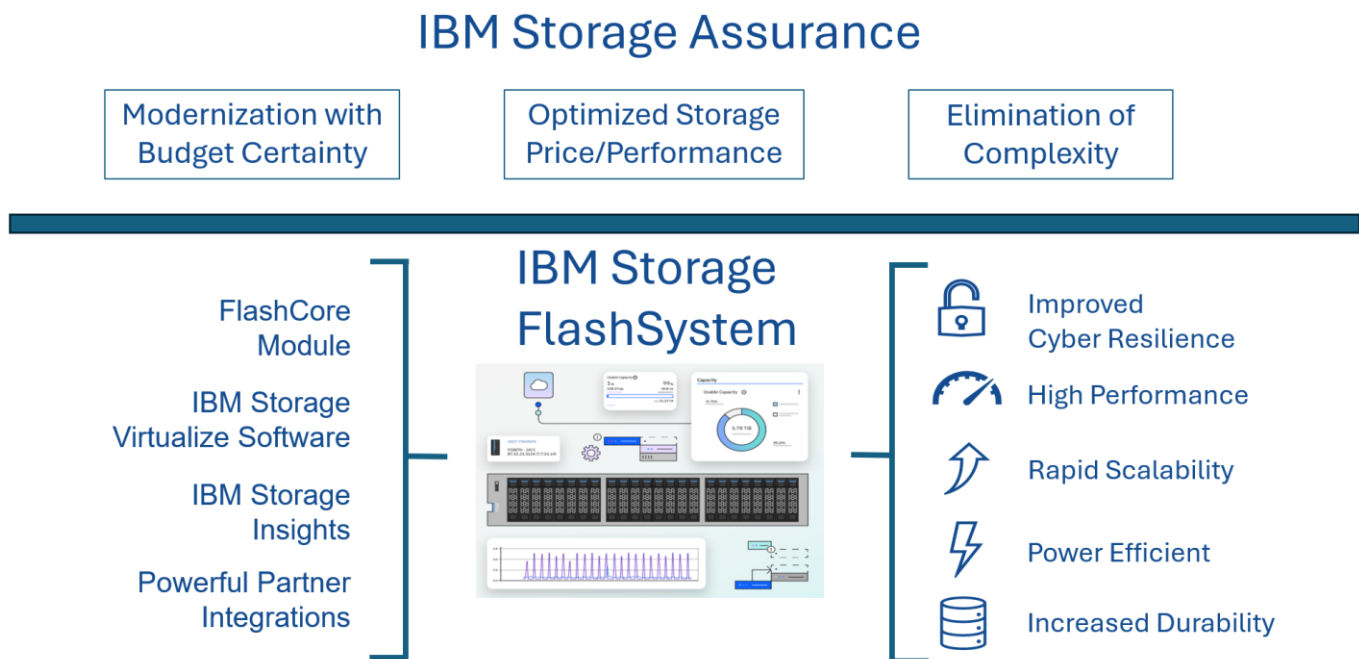
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Enterprise Strategy Group Economic Validation

Enterprise Strategy Group completed a quantitative economic analysis to understand the impact of the Storage Assurance consumption model. 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 also incorporated findings on the Enterprise Strategy Group economic validation conducted in 2023 on IBM FlashSystem storage and storage resilience.[2] The qualitative and quantitative findings were used as the basis for a simple economic model comparing the expected costs and benefits of shifting to the consumption model of IBM Storage Assurance.

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[2] Source: Enterprise Strategy Group Economic Validation, *Analyzing the Economic Value of IBM Storage FlashSystem Built-in Resilience*, December 2023.

IBM Storage Assurance Economic Overview

Enterprise Strategy Group's economic analysis revealed that organizations that adopt the IBM Storage Assurance consumption model to acquire IBM FlashSystem technology can see substantial benefits in areas including:

- Modernization with budget certainty.
- Optimized storage price/performance.
- Elimination of complexity.

Modernization with Budget Certainty

Developing a long-term strategy for enterprise storage is critical to the ongoing planning for most organizations, however, Enterprise Strategy Group found that roadmaps beyond three years were often muddied with changes in technologies, hardware availability challenges, and business disruption. All of these inject risk into building an effective storage plan that stays modern over time.

- **Hardware availability.** Storage technology changes quickly. Companies looking to extend their storage investment beyond three years often find that replacement drives and hardware are hard to find or even out of production. IBM's Storage Assurance guarantees hardware availability for the life of your contract and will do full system refreshes if items are unavailable.[4]

> **IBM Storage Assurance provides hardware availability, software availability, and performance level guarantees for the life of your agreement to address storage lifecycle challenges.[3]**

- **Software availability.** IBM guarantees that your system will be able to install future software updates to access new features throughout your contract. Enterprise Strategy Group has reviewed the capabilities of IBM Storage Insights and IBM Storage Virtualize and found them to provide extensive visibility and control while eliminating much of the complexity that can come with alternative software choices.

- **Supportability.** IBM's Storage Assurance comes with Storage Expert Care which gives you guaranteed maintenance with and clear commitments on SLAs including rapid response times and guidance to optimally configure IBM FlashSystem.

- **Budget certainty.** Customers with IBM Storage Assurance have set and predictable pricing spread out through the life of their agreement. This eliminates the huge outlays that can come with traditional storage and removes the impact of price spikes.

- **Vendor supply.** IBM guarantees the availability of hardware while eliminating the ongoing procurement processes that are associated with enterprise storage. IBM also guarantees a new system refresh if your system ever reaches end of support.

Optimized Storage Price/Performance

Organizations with IBM Storage Assurance are guaranteed to get their specified level of performance that scales as the capacity of their system grows, with the promise of hardware refreshes from the third year of the contract if performance numbers aren't met. In addition to getting guaranteed levels of performance and support, the

> **"With FlashSystem, we actually get the advertised performance of our storage system. Not in bursts, we get the speed we purchased on a day-in, day-out basis."** — Participant in customer interviews for 2023 IBM FlashSystem EVV

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[3] Source: "IBM Storage Assurance Perpetual Contract Details and Country Availability," IBM.com, April 2024.
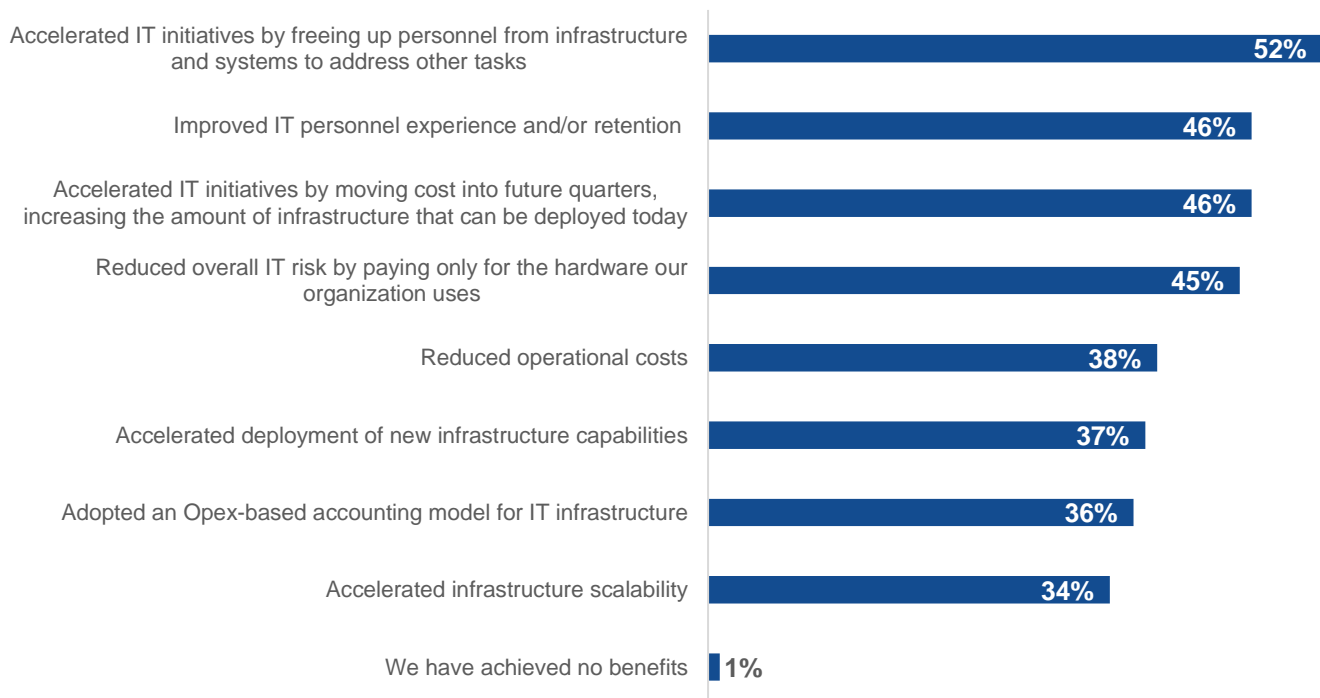[4] Ibid.

storage costs are guaranteed for the length of the contract. Customers can set the required levels of performance and lock in costs for up to eight years.

Enterprise Strategy Group was able to analyze IBM-provided metrics comparing IBM Storage Assurance against competitive subscription-based storage and traditional storage models. We found their projections of costs to be reasonable and accurate with the highest comparative differences in four- and eight-year terms and overall costs very comparable to alternative offerings. We believe with the benefit of risk transfer as well as the strategic differences of IBM FlashSystem storage, the overall ROI is extremely compelling.[5]

In Enterprise Strategy Group's full economic analysis of IBM FlashSystem Storage, we found that storage costs were 40%-90% lower for customers moving to IBM FlashSystem. This savings is attributed to factors including improved IBM FlashSystem performance compared to other systems, reduced data footprint, and increased operational efficiency. All of the benefits we reviewed for IBM FlashSystem will be available to organizations through the IBM Storage Assurance consumption model. When examining the benefits of shifting to a consumption-based storage model (see Figure 3), Enterprise Strategy Group research found the top ones to be attainable by IBM Storage Assurance customers.[6]

Figure 3. Benefits to Shifting to a Consumption-based Storage Model

Which of the following benefits, if any, has your organization achieved, or does it expect to achieve, by leveraging a consumption-based model for data center storage or HCI? (Percent of respondents, N=293, multiple responses accepted)
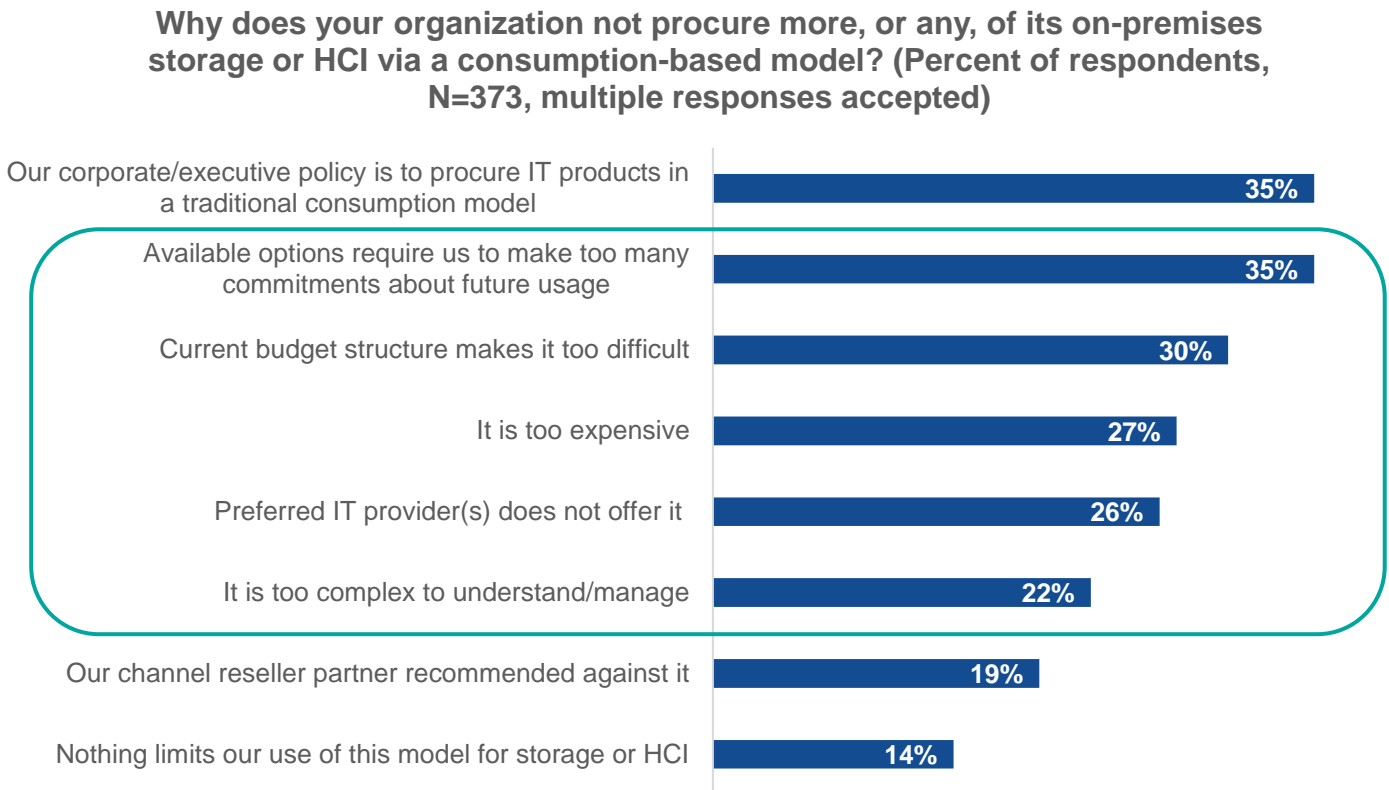
Benefit	Percent
Accelerated IT initiatives by freeing up personnel from infrastructure and systems to address other tasks	52%
Improved IT personnel experience and/or retention	46%
Accelerated IT initiatives by moving cost into future quarters, increasing the amount of infrastructure that can be deployed today	46%
Reduced overall IT risk by paying only for the hardware our organization uses	45%
Reduced operational costs	38%
Accelerated deployment of new infrastructure capabilities	37%
Adopted an Opex-based accounting model for IT infrastructure	36%
Accelerated infrastructure scalability	34%
We have achieved no benefits	1%

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

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[5] Source: Enterprise Strategy Group Economic Validation, *Analyzing the Economic Value of IBM Storage FlashSystem Built-in Resilience*, December 2023.
[6] Source: Enterprise Strategy Group Research Report, *Navigating the Cloud and AI Revolution: The State of Enterprise Storage and HCI*, March 2024.

The benefits are clear; however, many organizations are reluctant to shift to consumption-based storage (see Figure 4). When reviewing the barriers to shifting to a consumption-based business model, Enterprise Strategy Group believes that IBM Storage Assurance directly addresses five of the top six reported barriers.[7]

Figure 4. Top Barriers to Adopting Consumption-based Storage

Why does your organization not procure more, or any, of its on-premises storage or HCI via a consumption-based model? (Percent of respondents, N=373, multiple responses accepted)

Our corporate/executive policy is to procure IT products in a traditional consumption model	35%
Available options require us to make too many commitments about future usage	35%
Current budget structure makes it too difficult	30%
It is too expensive	27%
Preferred IT provider(s) does not offer it	26%
It is too complex to understand/manage	22%
Our channel reseller partner recommended against it	19%
Nothing limits our use of this model for storage or HCI	14%

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

Elimination of Complexity

Enterprise Strategy Group found that IBM Storage Assurance can remove complexity from multiple workflows. For planning strategists and procurement teams, signing a contract for IBM Storage Assurance alleviates much of the tactical work for those teams. For IT administrative groups, a move to IBM FlashSystem abstracts much of the complexity out of storage management while still providing full visibility and granular control.

We believe that a move to IBM Storage Assurance will help shift IT and procurement energy from tactical below-the-line activities to above-the-line efforts that better align IT capabilities to business initiatives (see Figure 5).

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[7] Ibid.

Figure 5. Shift Focus From Below-the-line Activities to Those That Are Forward-looking
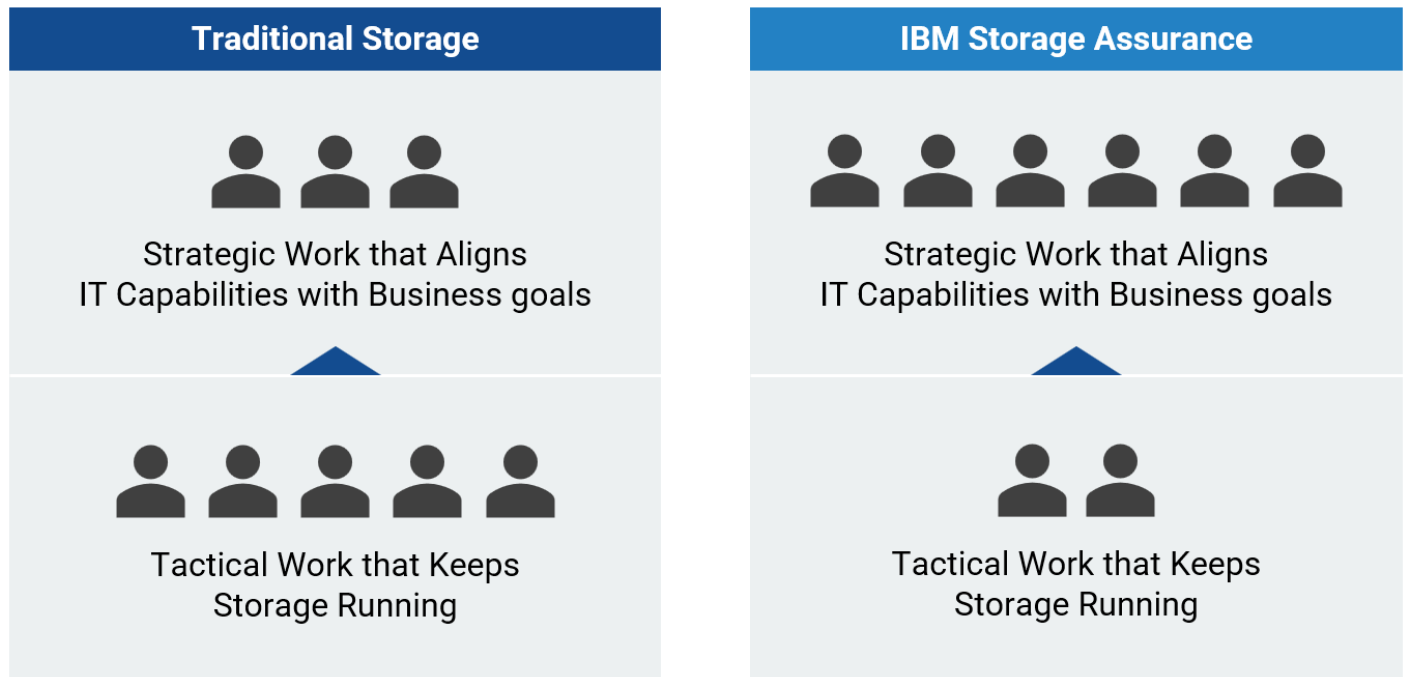
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Conclusion

Planning a strategy for storage is a challenging task. Technology is consistently changing, support for older storage can end without much notice, and supply chain struggles make finding expansion and replacement hardware difficult.

IBM has a strong reputation for providing high-quality and cost-performant storage. IBM FlashSystem is enterprise-grade storage accompanied by software and support that abstracts much of the complexity from the storage equation. Recently, IBM has started offering IBM Storage Assurance, a consumption model that provides access to the IBM FlashSystem technology, where IBM guarantees the availability, price, and support for storage contract lengths of up to eight years. Enterprise Strategy Group analyzed the impact of shifting to the IBM Storage Assurance consumption model and found that there were substantial benefits in shifting the risk of storage strategy to IBM on top of the benefits of IBM FlashSystem.

Enterprise Strategy Group highly recommends that any company with the need to update their storage strategy consider the impact that the IBM Storage Assurance consumption model can have on their operations.

How We Formed Our Views

IBM Storage Assurance is a new initiative that is being offered to customers as this analysis was written. To form our views for this paper, we relied on our existing research, industry expertise, IBM-provided insight, and previous studies on IBM storage technologies. We feel the benefits described in this paper are realistic and achievable for most organizations.

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.

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