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ECONOMIC VALIDATION

Analyzing the Economic Benefits of Pure Storage Evergreen//One

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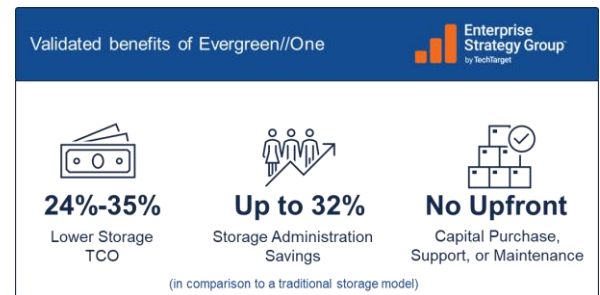Enterprise Strategy Group

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Executive Summary

Technological change is accelerating rapidly, and businesses that cannot keep up with these changes risk becoming obsolete. The Pure Storage Evergreen//One storage-as-a-service (STaaS) consumption-based model reduces the complexity of storage management by allowing organizations to achieve the flexibility of the cloud, on or off premises, while optimizing security and lowering upfront costs. The Evergreen//One pay-as-you-go model streamlines financial efficiency and business agility, and organizations can scale storage needs up or down as requirements change without downtime, performance impact, data migrations, or forklift upgrades. Additionally, businesses will only pay for the storage capacity used, eliminating the need for those large upfront investments in hardware, which is often underutilized.

TechTarget's Enterprise Strategy Group (ESG) validated that the Pure Storage Evergreen//One subscription offers a managed storage solution that provides financial flexibility and operational agility while mitigating IT risk. Customers we spoke to were enthusiastic about the actual benefits they experienced, such as business agility and flexibility, cost predictability, and operational savings.

ESG created a modeled scenario validating Evergreen//One's total cost of ownership (TCO) over three years compared to a traditional storage model. This model illustrated that, with Evergreen//One, organizations could **lower their storage TCO by 24%-35%**. This includes no upfront capital purchases for hardware, support, or maintenance and up to 32% in storage administration savings.

Introduction

This Economic Validation from Enterprise Strategy Group focused on the quantitative and qualitative benefits organizations can expect from the Pure Storage Evergreen//One consumption-based storage-as-a-service platform.

Challenges

The increasingly rapid pace of business demands and technological change has escalated the need for secure and accessible data. To stay competitive and operate in a modern IT ecosystem, organizations are beginning to examine how their data is stored. Deploying and managing enterprise storage is costly, complex to operate and maintain, and often difficult to scale. On-premises solutions offer organizations total control of the data and infrastructure; however, it requires a large capital outlay to buy more storage upfront, and capacity must be predicted years in advance, making it difficult for businesses to meet their storage needs. Furthermore, the global supply chain shortages have made securing hardware products on time difficult, slowing momentum for companies trying to stay competitive.
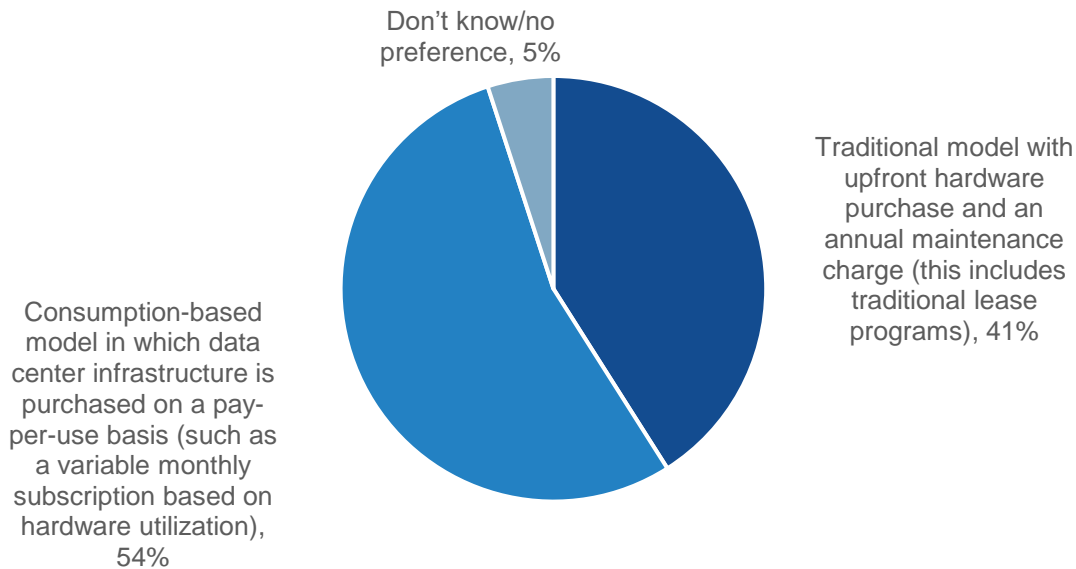
The benefits of the cloud are well known, and as such, many businesses are turning to the public cloud for their storage needs to simplify operations and avoid those high upfront costs. However, public cloud storage may not be right for every organization, including those organizations that need to maintain sovereignty of their data or support legacy applications or those that are simply not ready to give up control.

What organizations have been searching for is the best of both worlds: cloud-like functionality for their on-prem IT environment. Consumption-based models can deliver, deploy, and manage on-prem storage solutions that allow for a variable monthly subscription based on hardware utilization. A recent research survey conducted by Enterprise Strategy Group showed that 54% of respondents said their organization would prefer to apply a consumption-based

payment model to their on-premises data center infrastructure rather than a traditional hardware purchase and maintenance model.[1]

Figure 1. Cloud Consumption Model for Data Center Infrastructure Continues to Gain Momentum

Assuming the net-cost were the same, which of the following do you believe would be your organization's preferred payment model for on-premises data center infrastructure? (Percent of respondents, N=742)

Don't know/no preference, 5%

Traditional model with upfront hardware purchase and an annual maintenance charge (this includes traditional lease programs), 41%

Consumption-based model in which data center infrastructure is purchased on a pay-per-use basis (such as a variable monthly subscription based on hardware utilization), 54%

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

Moreover, business-critical workloads demand the highest levels of performance, availability, and security. To achieve this, businesses are looking to implement storage-as-a-service (STaaS) consumption-based models. Organizations like the concept of storage delivered as a managed service because of the ease of use and flexibility at a lower cost. STaaS allows an organization to benefit from a storage infrastructure that supports modernization efforts while only paying for what the organization uses. Furthermore, STaaS models provide the flexibility and agility that business enterprises require to stay competitive and are crucial for enterprise storage needs.

The Solution: Evergreen//One

Evergreen//One service, built on the Evergreen architecture, eliminates the complexity and cost associated with storage administration and support, helping organizations achieve financial flexibility and operational simplicity while mitigating IT risk.

Evergreen//One is a storage-as-a-service (STaaS) subscription that unifies on-premises and public-cloud storage resources into a single data-storage subscription delivering a true hybrid-cloud experience. An Evergreen//One subscription includes:

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[1] Source: Enterprise Strategy Group Research Report, *2023 Technology Spending Intentions Survey*, November 2022.

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- A simple subscription for block, file, and object storage needs.

- Access to Pure1 management tools for managing an organization's hybrid-cloud environment from a single dashboard.

- 100% consumption-based subscription model that allows organizations to pay only for what they use.

- Guaranteed SLAs and no scheduled downtime.

Evergreen//One is a unique subscription model that is fine-tuned to deliver the operational agility and financial flexibility required to mitigate business risk and deliver enterprise-grade storage services via a single unified subscription for hybrid clouds.

Figure 2. Evergreen//One Storage-as-a-Service Platform

Built on Evergreen architecture

Support and maintenance included in the subscription

Financial flexibility and operational simplicity

Mitigating risk

On-premises and public-cloud storage resources unified into a single data-storage subscription delivering a true hybrid-cloud experience.

No storage hardware costs

Pay only for the capacity used

Pure Storage manages infrastructure (no burden to the customer)

Access to Pure1 management tools

Pay only for unique host-written data

Guaranteed SLAs and non-disruptive upgrades

Business agility and flexibility

Cost savings and predictability

Operational savings

Evergreen//One™
Powered by Pure Storage

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

Enterprise Strategy Group Economic Validation

Enterprise Strategy Group (ESG) completed a quantitative economic analysis of the Pure Storage Evergreen//One storage subscription.

ESG's 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 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 Evergreen//One has impacted their organizations, particularly in comparison with previously deployed and/or experienced solutions. The qualitative and quantitative findings were used as the basis for a simple economic model comparing the expected costs of traditional on-premises and cloud-based storage options versus the consumption-based storage subscription from Pure Storage.

Pure Storage Evergreen//One Economic Overview

Enterprise Strategy Group economic analysis revealed that Pure Storage Evergreen//One can provide the following benefits:

- **Business agility and flexibility** – As business needs change, organizations can easily scale their storage up or down with no penalty or delay using Pure Storage Evergreen//One. Organizations no longer need to ensure enough storage has been purchased in advance, then hope to "grow into the additional capacity" that they've purchased.

- **Cost savings and predictability** – With an Evergreen//One storage subscription, businesses recognize a cost savings over time as the need to forecast storage and make large upfront investments are no longer required, thus avoiding overprovisioning storage and the costs associated with unused storage.

- **Operational savings** – Because Evergreen//One is a consumption-based model, costs related to installation and upgrades of hardware and software when scaling capacity are eliminated. Daily management and administration operations are included in the subscription, further reducing maintenance costs.

Business Agility and Flexibility

The traditional method for purchasing storage hardware and software does not lend itself to maintaining a high level of business agility and flexibility. While organizations forecast storage needs—block, file, object—over three to five years, these forecasts will never account for unexpected business needs that can arise during this time. Organizations then face underutilizing what they purchased or not purchasing enough when scaling up storage capacity. Evergreen//One gives its users the flexibility to run their enterprise applications and TestDev in the cloud of their choice with a single unified license across hybrid cloud, responding quicker to lines of business. Enterprise Strategy Group's analysis revealed that Pure Storage Evergreen//One offered savings and benefits in the following categories:

- **Only pay for additional storage capacity when the business need arises** – Evergreen//One delivers flexibility to organizations with changing data capacity requirements. Organizations that experience seasonal spikes in data or are implementing new applications into their IT systems will often require additional unplanned storage capacity. The Evergreen//One subscription accommodates these storage spikes in a cloud-like manner. Customers shared that they enjoyed the fact that they no longer had to forecast how much storage they needed in advance.

> **"Scaling our business was simple. We can grow on the fly without having to plan how much capacity we might need."**

- **Scaling On-Demand** – Customers we spoke to stated they only paid for the resources used and were able to scale on demand. The cost is based on the quantity and capacity of resources used, whether it's planned or unplanned. The capacity and performance SLAs guarantee that you have what you need when you need it.

- **Reduced Overprovisioning** – Pure Storage recognizes that organizations may underestimate the storage they need at any given time. To ensure that organizations are covered, Evergreen//One pre-installs extra storage beyond what has been contracted. This buffer capacity eliminates the need for you to predict future storage requirements and reduce overprovisioning. The storage platform maintains 25% or 1,000TiB headroom, with no additional charge, above actual usage.

> **"We don't have the traditional supply chain issues that are standard with a traditional Capex model."**

- **Deploy storage without delay** – Customers we spoke to said they were able to respond to changing market conditions without waiting to install additional on-premises storage. Pure will meet your capacity and performance SLAs by already having that infrastructure deployed on prem; therefore, organizations do not face the hassle of potentially long lead times after purchase. The time required to install, test, and deploy storage hardware and software is not incurred.

- **Manage from a single pane of glass** – With an Evergreen//One subscription, organizations have access to the Pure1 platform. The Pure1 platform is a dashboard that continuously monitors workload performance and capacity requirements on premises and in the cloud and provides predictive analysis and fault prevention, allowing organizations to manage everything from a single pane of glass.

Cost Savings and Predictability

With Evergreen//One's "pay-as-you-go" model, organizations reap the benefits of using Pure Storage hardware and software platforms including as high performance. Benefits include:

- **Eliminating capital expenses** – Customers we spoke to stated they were trying to move from a Capex spending model to an Opex spending model, which is one of the greatest benefits of Evergreen//One. The need for a large capital outlay for on-premises storage no longer exists when using Evergreen//One since Pure provides all of the storage hardware. Organizations no longer need to purchase against a forecast and buy storage for the next three to five years. The risk of overprovisioning does not have to be managed, as businesses can scale capacity when required, not hoping to "grow into" pre-purchased capacity. In addition, organizations do not need to buy hardware upgrades to leverage the benefits of new developments. It should be noted that while the customers we spoke with are looking to move from a Capex model to an Opex model, some customers still elect to account for Evergreen//One as Capex on their books.

> **"You are only paying for the capacity you are using, and we had more space on the floor. This helped us tremendously during those pandemic supply chain issues since we didn't have to wait for hardware."**

> **"If we didn't have Pure, we would have had to bring on more IT admins to manage storage."**

- **Significantly reduce operational expenses** – Once organizations subscribe to Evergreen//One, they are able to eliminate all deployment and installation costs related to on-premises storage. Pure Storage also takes over most of the daily management and operational responsibilities for every customer, such as software and hardware updates, performance enhancements, capacity expansion, and performance planning. Ongoing monitoring expenses also decrease, as organizations work with Pure Storage to optimize their purchased capacity as needed.

- **Pay only for effective used capacity (EUC)** – With Evergreen//One you're only paying for the capacity that your applications are using, or EUC. The data that is on arrays for snapshots, backup, data protection, overhead, or even growth can be taken advantage of without incurring huge costs since Evergreen//One bills it's customers based on the unique host written data.

- **Cost avoidance of downtime/migrations** – A substantial benefit is the productivity and time savings that Evergreen//One provides by enabling non-disruptive upgrades and eliminating the need for data migration, both of which reduce downtime. IT administrators also have more time for strategic initiatives by eliminating months of planning for storage upgrades, procurement, and implementations, then managing the backlog of business demand that accumulates during that time.

> **"We did a controller upgrade in the middle of the day and did not lose one ping."**

Operational Savings

With the Evergreen//One subscription, each customer is assigned a dedicated Customer Success Representative and other resources (i.e., SAM, DSE, TAM, Project Manager, etc.) that perform the majority of the infrastructure-related functions that would generally fall on IT teams to perform. Once organizations subscribe to Evergreen//One, all operational expenses related to on-premises storage—deployment and installation costs, daily management, and operating expenses—are significantly reduced or eliminated. Organizations benefit by:

- **Eliminating installation and deployment costs** – With the Evergreen//One subscription, organizations no longer need to physically deploy and install storage infrastructure. Expanding or reducing storage capacity is easily accommodated non-disruptively with Pure Storage.

> **"You no longer have to do the day-to-day management tasks that you would normally be doing."**

> **"If we didn't have Pure Storage, we would have to bring on at least three more storage admins."**

- **Eliminating infrastructure management** – Customers we spoke to said they didn't have to manage, plan, or maintain the physical infrastructure. There was no troubleshooting, no tuning and optimizing, planning, or ordering capacity upgrades. Pure Storage assumes daily management and operational tasks such as capacity, performance, availability, and energy management.

- **Eliminating cost/time to upgrades and updates** – Customers were able to take advantage of Pure's latest hardware deployments because Pure Storage assumes responsibility for updating the underlying storage infrastructure. No forklift upgrades are needed to take advantage of Pure's latest hardware developments. Instead, Pure Storage will proactively update hardware and software as required. This ongoing task is eliminated from the responsibilities typically held by storage administrators, thus cutting the related cost.

> **"The dedicated customer success representative provided support that was second to none. We no longer had to do the planning; the upgrade is done seamlessly."**

Enterprise Strategy Group Analysis

Enterprise Strategy Group (ESG) 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 three-year TCO/ROI model that compares the costs and benefits of implementing the Evergreen//One consumption-based subscription storage model. ESG's interviews with customers who have recently made the transition, combined with experience and expertise in economic modeling and technical validation of storage technologies, helped form the basis for our modeled scenario.

ESG created a financial model that measures the expected costs and savings when implementing the Evergreen//One storage-as-a-service consumption-based model versus a traditional on-premises storage model and found that our results aligned with what was reported in customer interviews. The TCO results were quantified in the following categories: upfront capital purchase; support and maintenance; monthly subscription; power, cooling, and floorspace; and storage administration.

Our model calculated the expected costs to deploy and operate the Pure Storage block model C40R3 for a traditional Pure Storage purchase with the Evergreen//Forever subscription and an Evergreen//One consumption-based storage-as-a-service model. We assumed 400 TiB of capacity for year one deployment for the traditional block array (requirement up to year 3) and 200TiB for Evergreen//One with a 40% growth rate over three years (200/280/392 TiB). Our analysis showed there is a 24% lower TCO with STaaS. Had this model compared against an alternative traditional storage vendor, the TCO findings could be much higher. Our summarized findings comparing Evergreen//One against Evergreen//Forever from Pure Storage are shown in Figure 3.

Why This Matters

Information and communication can now be transmitted at lightning-fast speeds, and businesses that cannot keep up with the speed of change risk falling behind their competitors.

The Pure Storage Evergreen//One STaaS consumption-based model can help businesses increase business agility and flexibility, cost predictability, and operational savings.

Enterprise Strategy Group's models predict that, by implementing Evergreen//One, there are **no upfront capital purchases, support, or maintenance**. Organizations can reduce storage administration costs by 32% and lower the total cost of storage ownership by 24%-35%.

**Figure 3.** Expected Savings and Benefits Over Three Years for the Modeled Scenario
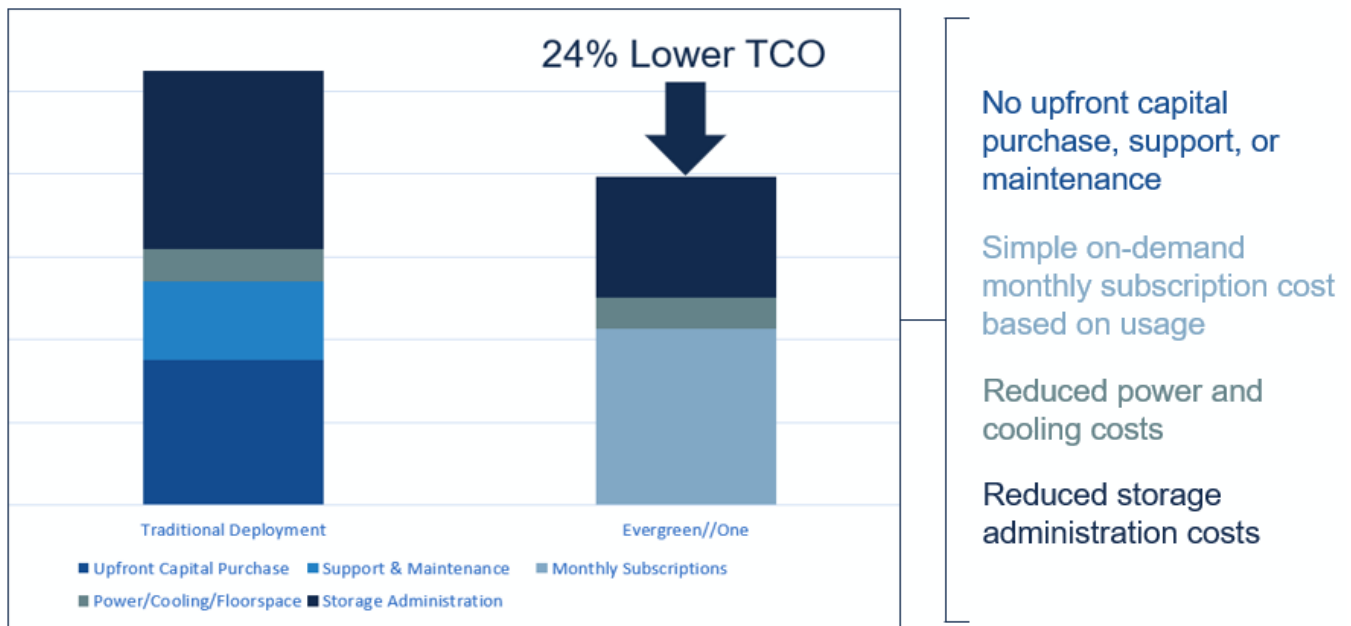
What the Numbers Mean

- **No upfront capital purchases, support, or maintenance.** The need for upfront capital expenditures on hardware is eliminated since Pure1 is included with an Evergreen//Forever subscription, along with the physical storage infrastructure, including the servers, storage devices, and networking equipment. It is also unnecessary for organizations to estimate capacity needs upfront, as the Evergreen//One STaaS consumption model allows business enterprises to scale their storage based on usage, eliminating the need for overprovisioning and realizing cost savings associated with unused storage. Furthermore, organizations can realize additional cost savings since hardware asset and lifecycle management are eliminated.

- **Simple on demand monthly subscription cost based on usage.** The intent of the Evergreen//One STaaS consumption model is to streamline management by outsourcing administration to Pure Storage and making procurement similar to purchasing public cloud storage. There is a monthly subscription cost with a simple and transparent pricing model based on a flat $/TiB rate for services. A traditional storage hardware solution will not incur subscription costs.

- **Reduced power and cooling costs.** The Evergreen//One STaaS consumption model enables organizations to only use the capacity they need to operate their storage system, while the traditional model requires an organization to predict their capacity usage upfront. The consumption model allows for more usable capacity per array with less storage overhead. This results in less need to manage, maintain, power, and cool hardware.

- **Reduced storage administration costs.** With Evergreen//One, a dedicated customer resource manager is assigned to each of its subscribers. This customer resource manager takes the burden of support and maintenance away from their customers and places the responsibility upon themselves. They are responsible for regular software and hardware updates, performance enhancements, capacity expansion, and performance planning. Enterprise Strategy Group (ESG) modeled **32% savings** in the expected costs to

manage storage along with the savings in customer-required time that Evergreen//One and a dedicated Customer Success Manager offload. ESG assumed 1 FTE, with 80% of their work hours focused on storage obligations. The Evergreen//One STaaS consumption model removes many administrative obligations through its managed service. Customers found that it took **30% less time to monitor the storage environment** because the dedicated Customer Success Manager takes on the need to monitor performance and availability. **A 95% time saving has been reported for capacity planning** since the capacity is already there. Customers no longer need to forecast storage growth requirements and plan or migrate storage. Customers saw **80% time savings in evaluation** since Pure Storage keeps them updated on new developments and will help evaluate what is needed. Administrators save **the majority of their time on installation and maintenance** because Pure Storage will install, maintain, and expand it. These savings are broken down in Figure 4.

Figure 4. Expected Savings and Benefits for Storage Administration
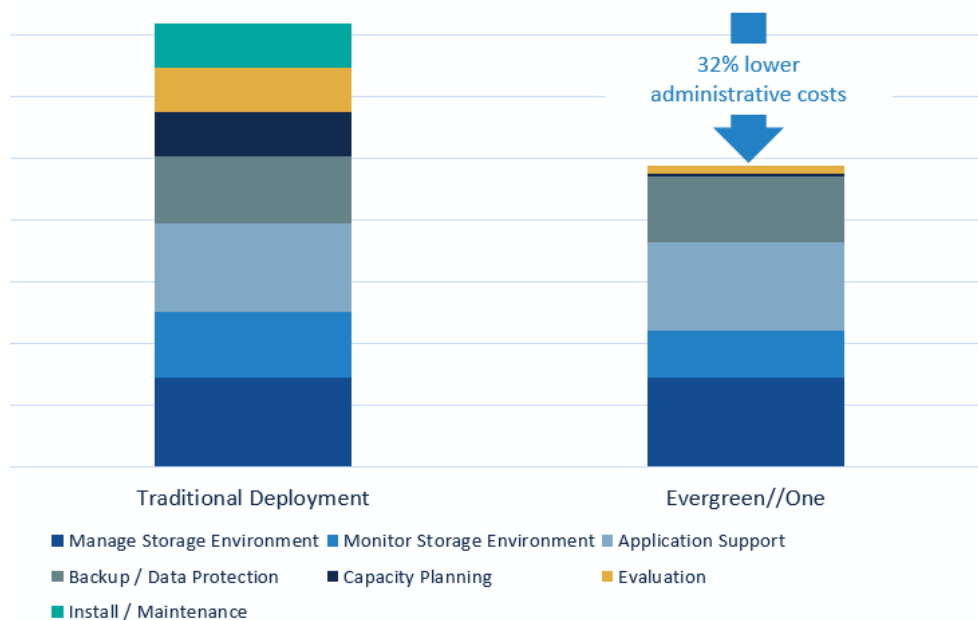
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

To better illustrate the advantages of Evergreen//One and how it can meet the demands of a dynamically changing environment, ESG created a second scenario in which the need for capacity increased in year two for the traditional on-premises solution. This model assumed a five-year period to show the impact in which business demand could shift up and down by a significant amount. Using the same assumptions in the first scenario, we assumed the organization deployed 400 TiB for the traditional on-premises solution in comparison to the 200 TiB with Evergreen//One; however, in this scenario, we assumed the business demand grew to require twice the capacity and performance. We assumed that Evergreen//One could meet that capacity on demand while the on-premises solutions would have to order the array and storage, have it shipped, wait for it to be deployed, and miss out on business opportunities and revenue. We then assumed that revenue declined over the next few years, leveling off at the original capacity required. Figure 5 shows the capacity requirement. Note that the on-premises solution would miss out on the business opportunity in year 2 and then be overprovisioned in years 3-5.
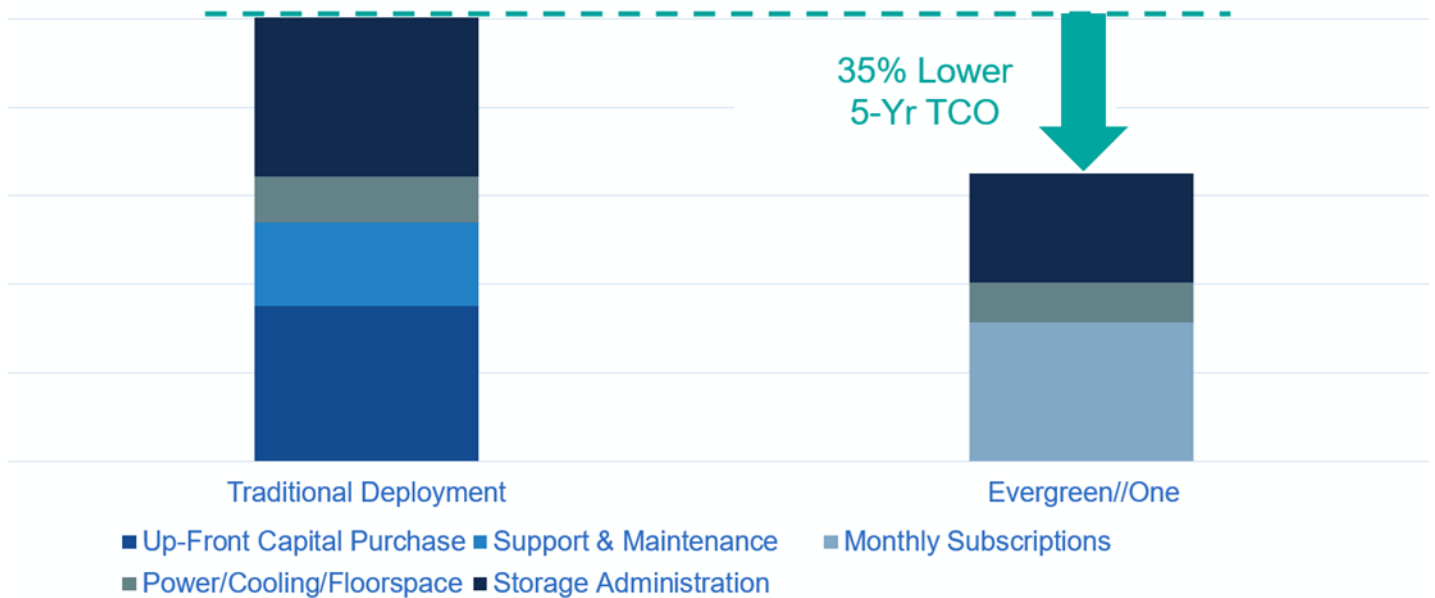
Figure 5. Capacity Requirements Over Five Years
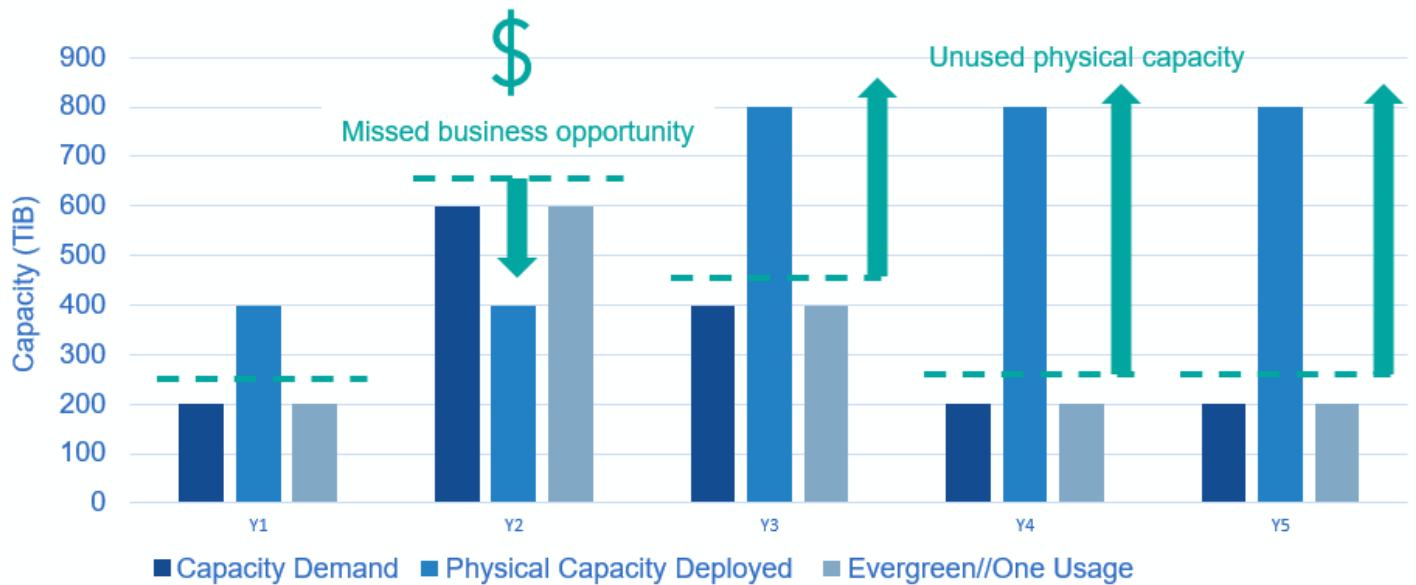
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Using the same type of evaluation, ESG created a five-year storage TCO analysis where the advantage rose to 35% (see Figure 6).

Figure 6. Expected Savings Over Five Years

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

Issues to Consider

While models by Enterprise Strategy Group (ESG) are built in good faith upon conservative, credible, and validated assumptions, no single modeled scenario will ever represent every potential environment or engagement. ESG recommends that you perform your own analysis of your unified file and block storage requirements and consult with your Pure Storage representative to understand and discuss the options and potential possibilities through your own proof-of-concept testing.

Conclusion

Organizations will continue to need more data storage, not less. Modern IT organizations seek storage solutions that provide faster data availability, scalability, and operational efficiencies that free up IT resources. Storage-as-a-service models represent a way for IT teams to support new workloads and business requirements with assurance while staying within their budgets. Evergreen//One STaaS is hybrid cloud by design. It is a single universal license that includes on-prem capacity and/or cloud block store. Cloud block store can be deployed on AWS or Azure and Pure1 can be used to manage across the hybrid cloud. It offers a cost-effective alternative to traditional storage solutions by shifting the burden of infrastructure investment, maintenance, and scalability to Pure Storage. With Evergreen//One, organizations will enjoy the agility and flexibility of public cloud storage coupled with the security and performance of an all-flash infrastructure. Additionally, the guaranteed SLA-driven storage service improves how data is stored, mobilized, and protected. With Evergreen//One, organizations can focus on strategic initiatives instead of the complexity of their infrastructure.

Enterprise Strategy Group validated that the Pure Storage Evergreen//One storage-as-a-service consumption-based model can help organizations lower storage TCO by 24%-35% while increasing business agility and flexibility, cost predictability, and operational savings. One customer summed it up well during an interview.

"I am so happy to be working with Pure. We were able to realize significant savings immediately, and I see us expanding our footprint with Pure in the future."

If you are looking for a solution to manage your organization's storage needs, we recommend exploring the Evergreen//One storage-as-a-service consumption-based model.

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