ESG SHOWCASE

Pure Unified Fast File and Object Storage

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ABSTRACT: For businesses to maximize the value of their data, they first need to rethink their infrastructure—with a focus on injecting more simplicity and accelerating both data and operations. Traditional, siloed storage environments cannot deliver the capabilities that modern businesses demand. But for many organizations, Pure Storage and its Unified Fast File and Object solutions could represent the core of a strategy to achieve "data-value maximization."

Overview

The digitization of the modern business is in full swing. At this point, only 5% of organizations surveyed by ESG report that they do not have digital transformation initiatives on their roadmaps. The remainder are looking to innovations in information technology to transform themselves. They hope that their digital initiatives will enable them to become more efficient (cited by 55% of respondents), deliver a better customer experience (cited by 49%), and/or deploy new data-centric products and services (cited by 41%).[1]

Continuing to use traditional storage infrastructure, however, often burdens these organizations—hindering their ability to capture those desirable opportunities. The burden is going to be on the IT group to make necessary improvements.

Such improvements are sorely needed. Consider that only 6% of the line-of-business executives surveyed by ESG said they viewed their company's IT group as a competitive differentiator for the business, while 25% regarded IT as a business inhibitor. Among the executives who believed their IT organization was inhibiting business success, 43% of them said it was because their workers were having difficulty accessing the data they needed for business operations and analysis.[2]

Interestingly, mature digital organizations are three times more likely than organizations without digital transformation initiatives in place (29% versus 9%) to say that IT has become significantly more complex for them in general. And the complexity driver most commonly identified by all organizations experiencing increased IT complexity is higher data volumes (cited by 37%).[3]

These businesses need a better way to proceed smoothly on their digital transformation journeys without adding more complexity. Pure Storage and its Unified Fast File and Object (UFFO) vision might be the answer. Pure's new category of storage accelerates a consolidated pool of unstructured data, making it better able to serve a variety of existing and new workload demands.

Digital Businesses Need to Accelerate and Simplify Access to Data

Not only is *unstructured* data in particular continuing to grow, but its importance to business transformation is rapidly increasing. Recently, unstructured data's value stems more from its use in developing real-time insights for business analysts, rather than being just another record preserved in a cold archive.

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[1] Source: ESG Research Report, *2020 Technology Spending Intentions Survey*, February 2020.
[2] Source: ESG Master Survey Results, *2019 Technology Spending Intentions Survey*, March 2019.
[3] Source: ESG Research Report, *2020 Technology Spending Intentions Survey*, February 2020.

With that in mind, it is not surprising that the vast majority of the IT organizations surveyed by ESG (71%) report that data storage technology is strategic to their organization's IT and business operations. Nearly half (49%) of them even state that data is their business, and 31% expect to offer data-centric products and services in the future.[4]

As file and object data becomes more essential to business success, the ways in which workers want to utilize that data have outpaced what was possible with traditional technology. For example, a separate ESG study of 300 data-focused and IT professionals familiar and involved with their organization's AI/ML initiatives and plans identified the biggest challenges or barriers their organizations have experienced with AI/ML projects and the two most common responses were:

- The cost of IT infrastructure required (35%).

- The need for better IT infrastructure capabilities (29%).

And when ESG asked those respondents to identify the most important considerations for infrastructure solution(s) to support their AI/ML initiatives, data storage was the most commonly identified response (36%).[5]

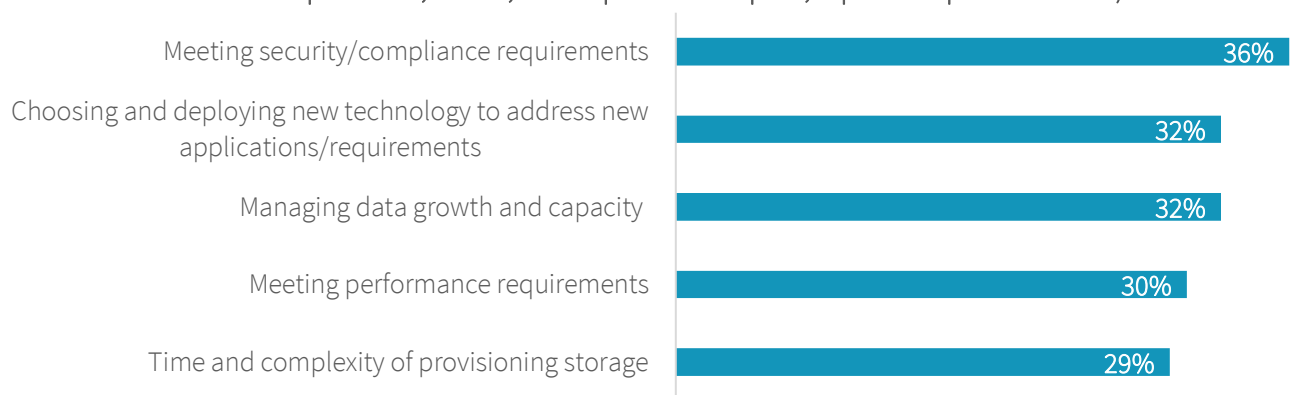## Characteristics of Traditional Storage Are Holding Back Enterprises

There are some very clear reasons why silos were created in the first place—reasons related to trying to overcome the limitations of legacy storage systems. But a storage foundation built on a diverse set of storage silos comes with inefficiency, complexity, and difficulty.

ESG research shows that the top challenges with existing storage infrastructure options, specifically file storage environments, include the rapid growth rate of data (25%), the management, optimization, and automation of data placement (19%), and poor performance (18%).[6]

Take the situation with data lakes, for example (see Figure 1). According to ESG custom survey research, organizations are experiencing challenges related to everything from meeting security parameters to achieving needed performance.[7]

Figure 1. Top Five Most Common Challenges Related to Supporting Data Lake Environments

Which of the following would you consider to be your organization's top challenges related to the underlying systems and infrastructure supporting your data lake environment? (Percent of respondents, N=157, five responses accepted, top five responses shown)

Meeting security/compliance requirements	36%
Choosing and deploying new technology to address new applications/requirements	32%
Managing data growth and capacity	32%
Meeting performance requirements	30%
Time and complexity of provisioning storage	29%

Source: Enterprise Strategy Group

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[4] Source: ESG Master Survey Results, *2019 Data Storage Trends*, November 2019.
[5] Source: ESG Master Survey Results: *Artificial Intelligence and Machine Learning: Gauging the Value of Infrastructure*, March 2019.
[6] Source: ESG Master Survey Results, *2019 Data Storage Trends*, November 2019.
[7] Source: ESG Custom Research commissioned by Pure Storage, see ESG Research Insights Paper, *Five Ways Data-driven Analytics Investments Have Digitally Transformed Businesses* for more project details, March 2020.

The characteristics of traditional storage that limit business include:

- The complexity of managing the system.

- Single-protocol capabilities, i.e., a lack of support for multiple protocols such as NFS or S3.

- Performance that can't scale with capacity. This limitation may come in the form of an inability to scale for large file and object counts, inefficiencies with small files, a lack of parallelism, or storage optimized only for sequential or random I/O.

- An inability to deliver data services at scale while staying compliant with SLAs.

Pure Storage and Its Unified Fast File and Object Vision

Pure's Unified Fast File and Object (UFFO) vision centers on its FlashBlade technology, and it focuses particularly on providing the simplicity, and multi-dimensional performance required to enable consolidation of key unstructured data workloads, eliminating storage silos that are under-delivering relative to the digital transformation journey. It is a system that is natively built for flash—offering native file and native object storage (versus serving only as a gateway).

Any organization seeking out a storage vendor-partner right now should be focusing on technologies architected for this digital era of business. Pure UFFO not only offers strong support for analytics, but also supports data protection use cases (rapid restore and ransomware remediation), cloud-native applications architectures, high-performance computing, AI/ML, and more.

Organizations are increasingly adopting Kubernetes/containerized applications as well. For these organizations, a key challenge is the performance of their persistent storage. UFFO helps here also.

The Bigger Truth

Unstructured data (whether file or object) has evolved from something that companies just stored for compliance reasons into something that they absolutely must utilize to achieve insights to make better business decisions and to engage with customers more productively.

In this age of digital transformation currently complicated by a pandemic, it is going to be especially important to free IT staff from dealing with the typical storage challenges they traditionally have faced. In that way, they will have more time to help line-of-business executives execute on their missions, support new business development initiatives, and ultimately deliver additional opportunities that will benefit the whole business.

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