

OCTOBER 2024

Pure Aims to Reinvent File Storage for the Modern Era With Real-time Enterprise File

Simon Robinson, Principal Analyst

Overview

Pure Storage has unveiled Real-time Enterprise File, a wide-ranging software update to its storage platform that enables IT organizations to better respond to the realities of managing modern file storage supporting demanding workloads such as AI, analytics, and VDI. The update is designed to enable customers to more quickly respond to changing application demands in real time, while reducing total cost of ownership.

Analysis

Enterprise-grade file data storage has been around for decades, and in many organizations is a critical function as unstructured data becomes more important to the business. This importance is growing as organizations explore the potential of technologies such as AI. Yet, a combination of exploding data volumes, storage fragmentation, and fast-evolving application demands means managing file storage at scale is an increasingly challenging exercise.

According to research from TechTarget's Enterprise Strategy Group, more than four in five organizations experience data management challenges associated with on-premises file storage environments.¹ Among other things, IT staff struggle to identify the right data set in a timely manner, automate and manage data services, and manage, place, and optimize file data, both between disparate systems and between tiers within single systems (see Figure 1).²

The repercussions of these challenges can be profound in terms of cost and overall business performance. Adding latency through manually intensive operations such as finding the right data and putting it in the right place means tasks take longer to complete, which can affect both technical and business service-level agreements (SLAs). These challenges are amplified as pressure on applications and the business to react quickly to ever-changing demands becomes an imperative.

Meanwhile, optimization challenges lead to resource inefficiency. Having low-value data residing on high-performance (and high cost) media is wasteful, while high-value data on low-performance media can have deleterious performance effects. And a lack of automation overall generates additional overhead on already overburdened IT staff—a situation that can lead to low morale and even potentially costly errors.

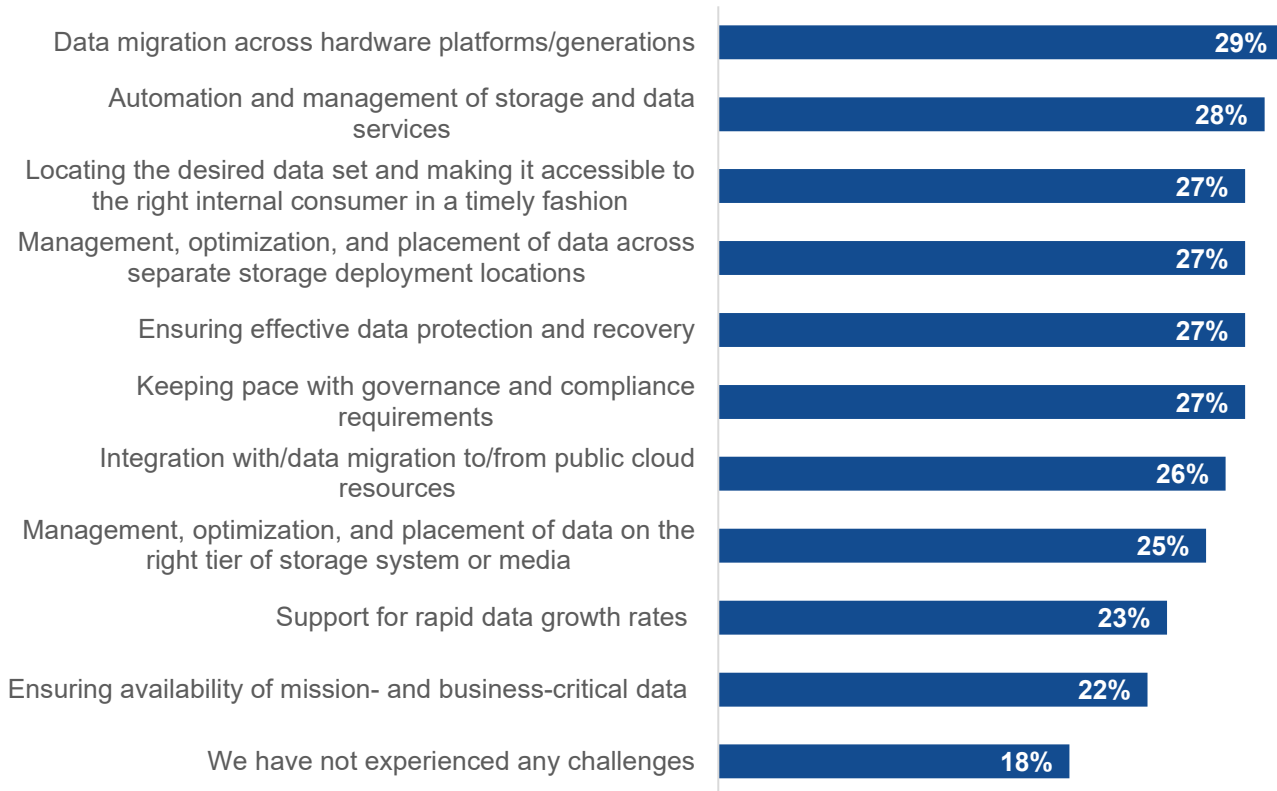
And there's a final, crucial consideration that shows that the imperative to modernize has never been stronger. Unstructured data is a key ingredient driving next-generation artificial intelligence applications such as generative AI. As such, IT and business leaders increasingly recognize that to build effective data pipelines for AI they need to have a modern, functioning on-premises file storage environment. Unfortunately, the ease of use, infinite scale and pay-as-you-go pricing that has come to define cloud-based file storage services has yet to be replicated inside the typical enterprise.

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

² Ibid.

Figure 1. Data-related Challenges With On-premises File Storage Environments

Which of the following, if any, are your organization’s data-related challenges with on-premises data center-based storage for file environments? (Percent of respondents, N=375, multiple responses accepted)



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

Conclusion

Over the last 15 years Pure Storage has re-invented block-level enterprise storage with wide-ranging innovations that span from the hardware layer, with its DirectFlash modules, to the consumption experience, with its Evergreen storage-as-a-service offering.

The company is now aiming to bring similar levels of disruption to enterprise file storage with an approach it calls Real-time Enterprise File. Its latest set of innovations are designed to eliminate the complexity associated with legacy file storage approaches, and bring as-a-service simplicity to file storage as part of a unified architecture. In short, it’s looking to bring the simplicity of public cloud storage to on-premises enterprise file.

Real-time Enterprise File comes with several notable innovations. One is the notion of “global storage pools.” This builds on the “fleet management” concepts Pure recently introduced into its Pure Fusion management software, and extends it to file storage so that IT admins can create a storage pool across multiple arrays that can grow or shrink on demand, while keeping data in place. By extending Pure Fusion to scale-out file as well as scale-up block storage, IT staff can manage file storage at an aggregate level, rather than having to plan, create, and manage storage reservation or allocations within individual systems.

Meanwhile zero-move tiering is a new approach to data tiering that Pure is bringing to its FlashBlade file storage systems. The key innovation here is around decoupling the storage pool from the array's compute resources, enabling customers to mix different classes of Flash-based storage (e.g. performance-oriented S-Blades and capacity-oriented E-Blades) within the same chassis. With this in place, a customer can instantly and easily—by utilizing SLA—manage data supporting workloads among different classes of storage (e.g. from high-performance to archive storage). The software instantly reassigns the compute resources associated with that data, rather than manually moving the data itself. Applying this technology to a single large cluster with many petabytes of data could dramatically reduce the amount of time that admins spend on ensuring data is on the most appropriate tier.

Other additions include Always On QoS capability for FlashBlade that offers additional capabilities around ensuring all resources are available to all workloads, with minimum resource contention, as well as an Always On Multi-Protocol Access which offers access for both NFS and SMB by default, designed to simplify the configuration process. Meanwhile, Pure also unveiled a new addition to the FlashBlade family: the FlashBlade//S100 is a scale-out system designed for entry-level use cases around AI, compliance, image repositories, edge, and robo applications.

Pure is also supporting file-based storage as part of its Evergreen//One storage-as-a-service capability, meaning that customers can subscribe to the FlashBlade fully metered and managed pay-as-you-go service that even includes the power bill.

In summary, the announcement of Real-time Enterprise File marks a substantial evolution around Pure's capabilities in the enterprise file market. It should markedly improve its appeal to mainstream enterprise customers looking to implement a modern file platform that optimally supports both current and fast-evolving future workloads.

©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