

Market Insight Report Reprint

Pure Storage drive to all-flash datacenters gets an ESG boost

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Introduction

Pure Storage Inc.'s strong earnings highlight the successful growth of its core all-flash storage systems against a strong group of established competitors. At the recent Pure Storage Accelerate show in Los Angeles, the vendor unveiled several key product announcements, including the new FlashBlade//S platform, a new AIRI//S platform and a revamp of the Evergreen subscription portfolio. This event followed on the heels of its Portworx Data Services (PDS) and Pure Fusion general availability (GA) launch, which officially made Pure Storage a player in the database-as-a-service (DBaaS) space, where it is looking to accelerate deployments of data services, in addition to introducing a new cloud operating model to customers. Pure recently issued its first ESG (environmental, social and governance) report, with claims of being able to provide up to an 80% reduction in carbon usage and power consumption versus competitor systems.

THE TAKE

Pure is driving a contrarian message that storage has not become a commodified product category, and it is investing 20% of its revenue into R&D efforts to continue to drive innovation. With energy cost concerns rising, all-flash storage system benefits such as low power consumption and high density – compared with hard-drive and hybrid (disk and flash) systems – are highlighted while concerns over the price of NAND flash media are diminished. In the core block, file and object storage market, the vendor's FlashArray and FlashBlade product lines have added key capabilities to improve performance, resiliency and efficiency. Pure also provides multiple ownership, pay-as-you-go subscription and full as-a-service consumption models for storage with the Evergreen portfolio, giving customers financial flexibility, operational agility and choice. The vendor is still growing at a healthy clip, as the ongoing energy crisis has highlighted the need to reduce power consumption at datacenters.

The Portworx product group continues to make inroads in the persistent storage and data protection space for cloud-native markets, and has made a bold entry into DBaaS with PDS, which launched with support for six services, and more on the way. Further M&A in areas such as data management and data protection are likely for Pure to expand its total addressable market and rapidly add new capabilities and engineering expertise.

Context

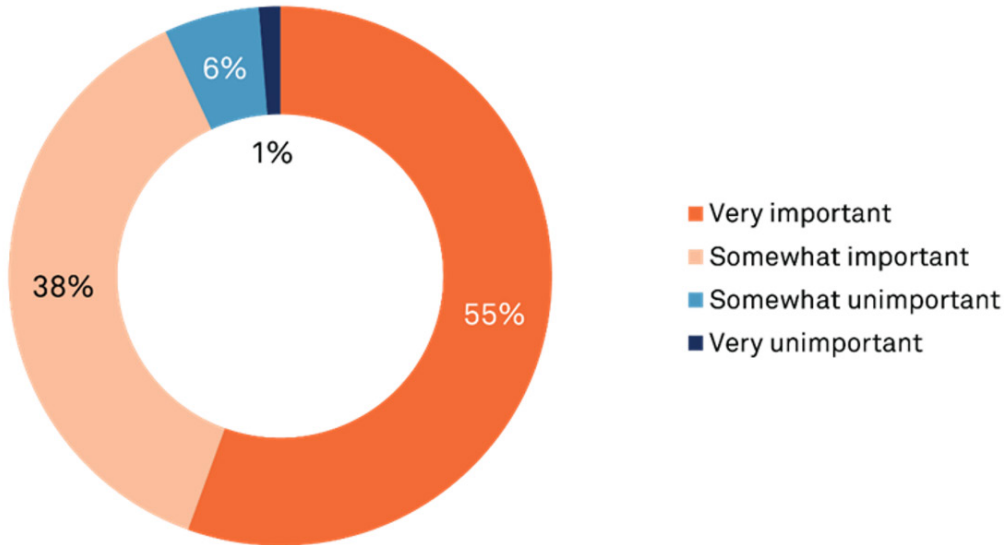
Culminating with the Pure Accelerate conference, which took place in Los Angeles in early June, the vendor released a series of new product announcements and its Q1 FY 2023 earnings for the period ending May 8, 2022. Pure currently has over 10,000 customers, including 54% of the Fortune 500, and it added 360 customers in Q1 FY23. In the quarter, the vendor had revenue of \$620 million, which was a 50% year-over-year improvement, and had subscription annual recurring revenue (ARR) of \$900 million, which represented growth of 29% year over year.

First ESG report

The vendor's first ESG report – its Product Life Cycle Analysis – states that its systems reduce emissions and energy consumption compared with rival systems. The FlashArray//C60 had 75% less greenhouse gas (GHG) emissions and energy consumption compared with a competitive hybrid array, while the midrange FlashArray//X70 posted an 84% reduction compared with a competitive all-flash system, and the high-end FlashArray//XL170 had an 80% improvement over a comparable system.

In our Voice of the Enterprise: Storage, Transformation 2021 study, 56% of respondents claimed the power efficiency and rack space consumption of storage systems were very important factors in determining which products were deployed in their datacenters, while an additional 38% claimed this was a “somewhat important” issue. Only 7% of respondents claimed power and rack space consumption were either somewhat unimportant or very unimportant.

Power Efficiency and Rack Space Consumption Are Impacting Storage Decisions



Source: 451 Research's Voice of the Enterprise: Storage, Transformation 2021

Q. How important are storage system power efficiency and rack space consumption when deciding which storage products to use in your datacenters?

Base: All respondents (n=317)

Products

The vendor made a number of key announcements in recent weeks, including the new FlashBlade//S platform, FlashArray enhancements, the GA of PDS and Fusion, and a revamp to its Evergreen portfolio of subscriptions.

FlashArray and FlashBlade platform updates

The new FlashBlade//S hardware platform has been in the works for the past two-plus years, and it is the most significant hardware update since the FlashBlade debuted in 2016. FlashBlade//S has an all-QLC flash design that provides improved efficiency compared with previous designs, allowing the system to store up to two petabytes of raw data in a 5U chassis. The system needs a minimum of seven blades to function, and can scale to 10 blades in a chassis, with each blade able to hold up to four DirectFlash Modules. Pure's proprietary DFMs are available in 24 TB or 48 TB sizes, and customers will be able to add newer DFMs with large capacities to improve the power and space efficiency of these systems over time without requiring a forklift upgrade. The FlashBlade//S is available in two different formats – the S200 is designed for efficiency and is tuned for high compression with slightly lower performance, while the S500 sacrifices some compression to provide higher performance per-TB capabilities. Also available is the new AIRI//S platform, the next-generation of its complete AI-ready infrastructure (AIRI) that simplifies AI development for organizations. Developed in partnership with Nvidia, AIRI//S is powered by the latest Nvidia DGX systems and the new Pure Storage FlashBlade//S.

For the FlashArray family, the recent announcements centered on the Purity 6.3 software upgrade, which focuses on improving the resiliency and data security of the platform. Auto-on SafeMode enables data protection by default using Pure's immutable snapshot capabilities, which have retention lock. Even if malware were to compromise storage APIs to delete snapshots and backups, the auto-on SafeMode capability would ensure data within the assigned retention period would remain preserved. Another key enhancement is new integration for continuous replication across both file and block storage. With this continuous replication in place, customers can test failover capabilities without impacting production workloads. Finally, the new Self Service Updates capability allows customers to update to the latest version of Purity when the timing is appropriate. Customers have the ability to either have consistent versions of Purity implemented across all arrays, or can tag specific arrays for a later upgrade if the application has compatibility issues with a new version of Purity. If an update goes wrong, the customer can roll back the system or call support to recover the previous working configuration.

Everything Evergreen

At the show, the vendor announced a revamp of its subscription portfolio, with the new Evergreen//Flex being the most notable addition. Evergreen//Flex is a fleet-level subscription that is designed to give customers the "security as control" associated with equipment ownership while providing consumption-based capacity pricing. With Evergreen//Flex, customers purchase hardware at an initial cost that is up to 70% less expensive than a traditional capital expenditure purchase, and the capacity becomes licensed as usage of the systems increases in Pure's pay-as-you-go usage-based subscription. Another unique aspect of Evergreen//Flex is that it allows customers to move data packs between different system models and across sites to quickly account for changing needs. For example, if an array gets close to running out of capacity and has empty slots available, the customer can remove a compatible DFM from a system with idle capacity to add that media to the system that needs it.

Evergreen//Forever was announced as the new naming for the Evergreen Gold program. It is geared for customers that are most comfortable with traditional appliance ownership, and this program provides a subscription for software, hardware upgrades and support.

Evergreen//One is the new naming for the Pure as-a-Service program. It provides customers with the full storage-as-a-service experience, whereby Pure owns and manages the storage assets for a customer on-premises and provides on-demand access to storage services.

PDS and Pure Fusion reach general availability

Pure announced PDS and Pure Fusion late in 2021, and the vendor recently made both of these offerings generally available. Pure Fusion is designed to deliver storage in a cloud operating model, and essentially provides a self-service portal experience with automated workload placement, workload mobility and fleet rebalancing. The platform currently has support for FlashArray systems, with Pure Cloud Block Store service support coming soon, and can extend services in on-premises or public cloud environments. The vendor's FlashBlade platform currently is not supported by Pure Fusion, although it will be added in the future.

PDS is a Kubernetes database-as-a-service platform that allows customers to quickly deploy, operate and manage production-grade data services on any cloud (public, on-premises or hybrid) without vendor lock-in. The initial release has support for Apache Cassandra, Apache Kafka, Apache Zookeeper, PostgreSQL, RabbitMQ and Redis, and the vendor will be adding support for new data services in the future. Customers have the option of using PDS through a user interface, or developers can use an API to access the service.

PX-Backup as a Service simplifies the Day 0 and Day 2 operations related to data protection of Kubernetes applications in production environments. The initial release supports auto-discovery of Amazon EKS clusters in your environment and provides single-click backup and restore for any type of Kubernetes cluster on any target (on-premises or public cloud).

Competition

In the storage system market, Pure continues to compete with established players Dell EMC, NetApp Inc., Hewlett Packard Enterprise Co., IBM Corp. and Hitachi Vantara. Beyond these vendors, there are other significant players, such as Infinidat, Vast Data and DataDirect Networks, which compete in emerging markets such as storage for AI/machine learning and unstructured data storage. FlashArray continues to be a revenue leader for the company, although its FlashBlade platform has managed to hit a billion dollars in aggregate revenue.

Pure's PDS is designed to be an alternative to DBaaS services such as Amazon RDS or MongoDB Inc.'s Atlas when a customer needs to run data services outside those environments or needs a data service that is not provided by these vendors. NetApp entered the DBaaS fray through its recently closed acquisition of InstaClustR, which it expects to contribute \$40 million in ARR next year, which would push it closer to attaining its long-term cloud revenue goal of \$2 billion in ARR by FY 2026.

SWOT Analysis

<p>STRENGTHS</p> <p>Pure Storage has held a leadership role in flash storage for several years, and is expanding into the emerging cloud-native space through newer assets such as Portworx.</p>	<p>WEAKNESSES</p> <p>The vendor is entering new markets such as DBaaS, where its core brand has less of an impact.</p>
<p>OPPORTUNITIES</p> <p>Rising energy costs have highlighted the power efficiency benefits of flash storage, which makes hard drive storage replacement more palatable for organizations.</p>	<p>THREATS</p> <p>Other storage and infrastructure players are still larger than Pure, and will not be easy to displace in their entrenched customer bases.</p>

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