SOLUTION BRIEF

Pure Storage Solutions for Retailers

Modern data storage that meets the needs of the modern retail industry.

Retailers are facing dramatic digital changes and multiple challenges. Omni-channel marketing and new in-store technologies are creating vast amounts of data. But in that data lies an opportunity for increased customer loyalty, sales growth, and brand expansion. Pure Storage® solutions are easy to use, fast, reliable, and future ready. From transactions to data analytics and ransomware protection, Pure lets you uncomplicate data storage forever. That's why 13 of the top 25 retailers rely on Pure.

Key Retail Use Cases and Challenges

With innovative, cloud-ready solutions and the best user experience in technology, Pure Storage is your partner in delivering on the promises of key use cases and overcoming challenges in retail:

- **Omnichannel retailing**: Omnichannel retail is now necessary to stay competitive. In addition to standard marketing channels such as in-store, company website, and social media, a wave of new technologies are appearing. These include smart mirrors, Bluetooth beacons, 5G connectivity, and even expanding your brand into the Metaverse. These will generate massive amounts of data that needs to be stored and analyzed in near real-time. And it will require new, agile software development based on microservices and containers.

- **Reliable and performant transactions**: Retail runs on transactions. Systems must be performant enough to handle both day-to-day workloads, as well as seasonal and unexpected spikes. Transactional databases provide a gold mine of information for analytics processing, requiring storage that makes it easy to share data.

- **Data analytics and AI**: The retail industry is changing dramatically due to analytics and artificial intelligence (AI). New real-time insights are being derived from data. A sampling of the benefits includes increased operational efficiencies, smart pricing,

Intuitive Experience

Simplicity is at the heart of Pure's design and delivery from products to services, implementation, upgrades, and support.

Fast Matters

Accelerate critical workloads with minimal latency, massive bandwidth, robust performance, and proven resiliency.

Greener Storage

Sustainability is a key goal for retailers. Pure is a leader in high-density, energy efficient data storage.

reducing returns, and increased customer engagement. One study in the fashion industry showed that companies implementing AI could see a 118% cumulative increase in cash flow by 2030. Retailers must begin the transformation that allows them to harness data at scale.

- **"Keeping the lights on"**: A recent survey shows that 42% of IT time is spent "keeping the lights on": doing routine, manual tasks. This takes precious time away from critical digital transformation projects. Retailers need a more service-like experience when purchasing and deploying data center storage.

- **Data security**: According to a report by Sophos, 44% of retailers were hit with ransomware in the previous year, making retail the most targeted industry along with education. Retail faces many security challenges, including too many legacy systems that are difficult to maintain, complex and distributed environments, and a rapid shift to more online selling that sometimes runs ahead of proper security. Video surveillance and security analytics are also growing areas.

- **Decarbonization and sustainability**: Zero emissions goals are increasingly important for retailers. Consumers and investors prefer companies with a positive sustainability message. While sustainability involves the entire retail supply chain, in-house reduction of power used in data centers can be an easy win with the right technology.
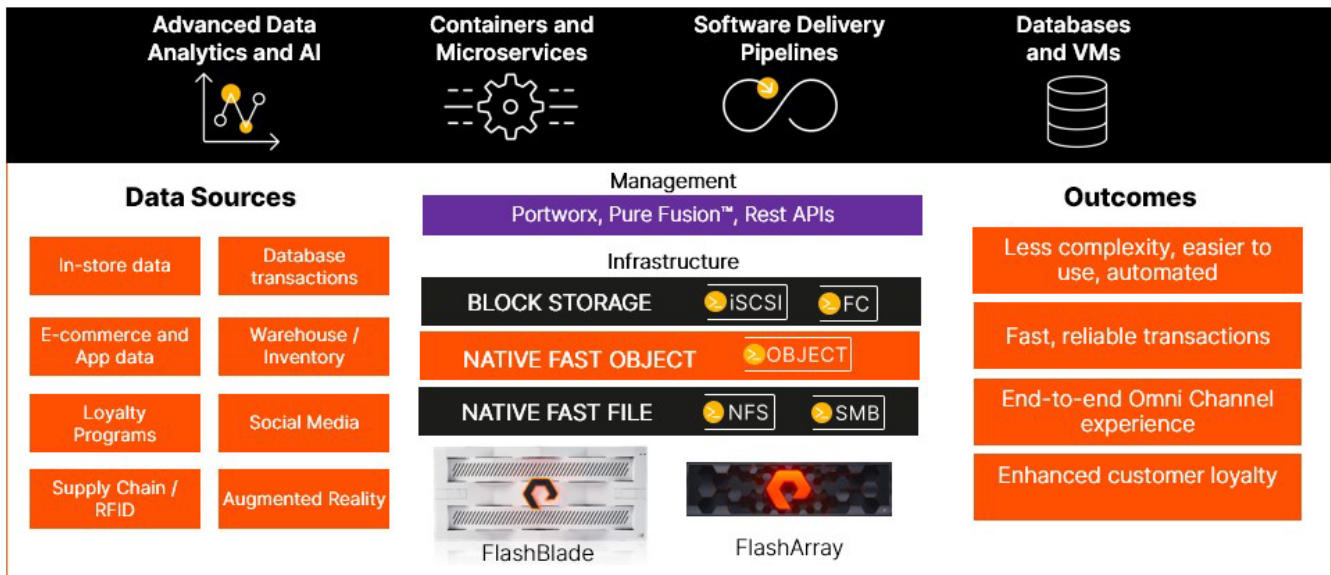

Figure 1: Pure offers a complete set of block, file, and object storage solutions that are ideally suited for all the different data sources prevalent in the retail industry.

Welcome to Modern Data Storage for Retailers

Pure Storage is the partner you need to evolve your data infrastructure and deliver on the promise of retail digital transformation. Pure enables a next-generation, API-driven, operating model to support the dynamic applications that will keep you competitive for years to come.

Data storage is a diverse topic that spans a range of disciplines and discussions. We've broken it down into the following critical areas.

Simpler Design, Deployment, and Use

Storage is a critical part of any retail IT infrastructure, but it shouldn't be a constant headache. IT departments are often stressed by managing storage, taking up valuable time needed for driving new initiatives. Storage outages, both planned and unplanned, impact revenue. Isn't there a better way?

Pure Storage simplifies everything in your storage environment. The hardware, software, and cloud management experience are co-designed to make everything just work. Systems never require performance tuning, and all array software is included. Pure is the ideal solution for a limited IT staff that wants to spend less time keeping things running and more time innovating.

Reliability is critical to retail IT, especially as more business activity moves to digital. FlashArray™ delivers proven 99.9999% availability, a number that includes expansions and controller upgrades. Many Pure customers have never had a moment of array downtime.

Modernizing your infrastructure doesn't stop at storage. A modern data architecture also needs smart storage management. Pure helps you extract maximum value from your data while reducing complexity and expense. Pure1® storage management delivers critical information about the health and functionality of your entire stack, right down to each VM.

Accelerate Critical Databases and Applications

Retail technology runs on transactions. Whether you are using Oracle, Microsoft SQL Server, SAP / SAP HANA, or open source databases, FlashArray has the performance you need to speed day-to-day transactions while easily meeting any seasonal or unexpected spikes in activity. Digital commerce, supply chain, back office and other workloads get the performance they need. Users of SAP Commerce solutions can rely on Pure, an SAP Global Technology Partner.

For the ultimate in performance and array density, FlashArray//XL allows you to consolidate more business services—bigger databases, more users, and more app workloads—on fewer arrays. Think faster transactions and more responsive customer experiences, with services always available and data always protected.

For high performance workloads that don't need the density of FlashArray//XL, the FlashArray//X family delivers consistent low latency across a range of size and performance options. Always-on Quality of Service (QoS) provides IOP and bandwidth limits to ensure applications get the resources they need.

For less demanding workloads and those that are capacity oriented, FlashArray//C lets you consolidate workloads with consistent all-flash performance at a lower TCO than hybrid storage. FlashArray//C provides a 100% NVMe all-flash experience for capacity-oriented applications, test and development work, multi-site disaster recovery, and data protection.

Modern AI Data Architecture Built for Retailers

AI and analytics are the driving force behind many of the fastest expanding retail use cases. With native support for both file and object (S3) workloads, Pure Storage FlashBlade//S™ is the "engine" for processing data in an AI-driven retail industry. The scale-out metadata architecture of FlashBlade handles tens of billions of files and/or objects with maximum performance. It's a platform built to consolidate data silos and eliminate serial bottlenecks, so you can focus on what matters most: delivering insights to the business by harnessing data at scale.

AIRI//S™ is a complete AI-ready infrastructure, architected by Pure Storage and NVIDIA, to extend the power of the latest NVIDIA DGX™ systems. AIRI offers retailers a simple and fast infrastructure to meet their AI demands at any scale.

FlashArray//C is the ideal, high-capacity, all-flash array for handling the massive data volumes required for AI projects. Indeed, FlashArray//C and FlashBlade are both used by Meta (Facebook) in its development of the AI Research SuperCluster.

Cloud- and Container-ready

Many retail businesses run on private-cloud platforms, and containers are a rapidly growing retail technology trend used to increase software agility. With Pure, you're ready for both.

For VMware environments, Pure provides an incredibly rich array of integrations and support. For VMware Cloud Foundation (VCF), FlashArray simplifies storage provisioning and storage management by minimizing configuration touchpoints. FlashArray integrates natively with the vSphere Client, VMware vRealize Suite and VMware Enterprise PKS.

For container-based workloads, Portworx® by Pure Storage provides a Kubernetes-native solution for persistent storage, data protection, disaster recovery, data security, cross-cloud migrations, and automated capacity management for applications running on Kubernetes. Portworx supports multiple public cloud services, as well as any physical block storage. FlashArray and FlashBlade users gain additional levels of integration and automation, making container deployments even easier.

For organizations looking at hybrid cloud, Pure Cloud Block Store™ is a cloud-native solution delivering seamless data mobility, resilience, and a consistent experience that is operationally identical to an on-premises FlashArray. This means you can migrate and run your existing critical and operational applications and workloads in the cloud without refactoring or redesigning them. Pure Cloud Block Store can provide cloud-based disaster recovery, as well as flexible DevTest infrastructure.

Deliver Continuous Innovation and Optimization

The retail landscape is constantly evolving. A modern storage solution should meet your needs today and tomorrow, and with Pure Storage, you benefit from a data storage solution that gets better over time.

The Pure Evergreen™ portfolio of subscriptions gives you the power to choose how you consume and deploy your storage: traditional purchase, flexible pay-as-you-go ownership, or true as-a-service. All based on the non-disruptive Evergreen architecture.

Since projects can spin up or be cancelled with little notice, it's very difficult to predict storage consumption year to year. The result is either over-buying and wasting budgets, or under-buying and facing resource constraints that delay projects. With Evergreen//One™ you get the storage you need when you need it. Evergreen//One bills on actual consumption, so you can pay as you go, and Pure manages the equipment.

When full Capex purchases are required, Evergreen//Forever™ combines a traditional storage purchase with a subscription to continuous upgrades. You can buy your storage once and run it virtually forever. And Evergreen//Flex™ provides a flexible subscription based on storage used, while retaining ownership of your infrastructure. Realize increased agility, better utilization, and fleet-wide asset management. Match spend with need more closely, without disruption or rebuys.

Protect Your Business from Ransomware

Data protection strategies designed for disasters, data corruption, or accidental deletions don't always hold up against ransomware attacks. Pure Storage helps mitigate ransomware attacks by securing critical data from being altered or destroyed—and allowing you to recover quickly from an attack.

Pure SafeMode™ protects backup data and metadata by creating a secure copy. With SafeMode enabled, ransomware can't eradicate, modify, or encrypt snapshots, even with admin credentials. With just a few clicks, you can restore business-critical data quickly and at scale. SafeMode is available with both FlashBlade and FlashArray and is certified to work with multiple backup vendors, including Commvault, Veeam and Veritas. If you are interested in replacing your current backup infrastructure, consider Pure FlashRecover™ Powered by Cohesity®.

Sustainable Data Storage

Retailers are increasingly setting targets to reduce carbon emissions. While sustainability is a large topic encompassing supply chain, manufacturing, and more, a key area for immediate improvement is the data center. Legacy storage systems consume huge amounts of power, and as retailers face massive data growth, they need to solve a puzzle: how do you grow data storage capacity while simultaneously lowering power consumption? Buying more of the same gear is a guarantee of failure.

At Pure, sustainability is an integral part of our technology, operations, and people. We've designed our storage with energy efficiency in mind, and our all-flash systems on average use 80% less power than competing platforms. This allows you to dramatically reduce your power consumption while at the same time adding capacity.

Additional Resources

- Visit the Pure Retail Industry page for the latest.

- Catch up on all retail industry blog posts from Pure.

- Download your free IDC Retail Cloud Investment guide.

- Learn how Pure helps support your environmental and sustainability mission.

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