

DATA SHEET

Drive Uncompromising Performance with FlashArray//ST

Get ultra-high performance and ultra-low latency on the same Pure Storage platform.

High Performance

- IOPS: 10M 4KB IOPS
- Consistent ultra low latency
- Supports only block storage

Optimized Data Services

- Snapshots and replication for data protection
- Writable clones for copy-data management
- Bypasses latency-inducing functionality

High Availability

- Non-disruptive upgrades
- Redundant hardware
- Fully modular and stateless
- Self-configuring, self healing systems

The Pure Storage® FlashArray//ST™ is engineered for ultra-high performance, delivering exceptional I/O capability critical for high-value applications. It provides 10 million IOPS with consistent ultra-low latency, making it ideal for performance-sensitive workloads like financial databases and real-time data processing.

I/O Performance Impact for High-value IT Applications

Enterprises in industries ranging from financial services to ad-tech and healthcare have had to compromise in order to support their performance-sensitive workloads. The lack of high-performance and low-latency storage meant having to choose niche solutions that lack robust support and enterprise reliability or traditional solutions that aren't optimized for maximum performance. The result: profits are left on the table in scenarios where even microseconds matter and speed means competitive advantages.

Achieving Ultra-high Performance Requires Redesign

Many capabilities that are associated with enterprise-grade storage induce latency. While relevant in day-to-day operations for common workloads, the result of these existing data pathways is greater end-to-end latency. Ultimately, this is hidden from the user as it's part of the internal operations of the array. In order to achieve the highest possible performance, tradeoffs must be made and—ultimately—redesign of the data paths at a deep architectural level is needed. Not doing so means leaving performance on the table.

Enter FlashArray//ST, Performance-focused Storage

FlashArray//ST is the newest member of the FlashArray™ family optimized for maximum I/O performance. In addition to foundational changes in the data path, this also means bypassing latency inducing capabilities like deduplication and compression and trading off the capacity efficiency of the other FlashArray models. FlashArray//ST still maintains the critical capabilities of the Pure Storage platform for block storage.

Evergreen Architecture

FlashArray//ST shares the same Evergreen® architecture as the rest of the Pure Storage platform, and shares the tried-and-true 5U FlashArray//XL chassis. Customers can expect the same non-disruptive upgrade experience that no other vendor can match with the longest running track record of successful upgrades in the market. Purity OS, the software heart of the Pure Storage platform, will continue to deliver backwards-compatible upgrades, ensuring that storage will continue to get more capable and more efficient over time.

High Availability

With a combination of redundant components, active-standy controller configuration, and data recovery features, FlashArray//ST ensures that workloads not only run at maximum efficiency but at the highest possible availability. Front-end controllers operate on active-active, while back-end controllers operate on active-standby, ensuring that unexpected outages and planned upgrades are truly non-disruptive. Purity OS provides fast copies, immutable and space efficient snapshots, and cloning to support performance sensitive processes. In this configuration, FlashArray//ST is able to ensure maximum uptime for critical workloads.

Power Performance Intensive Workloads

FlashArray//ST is designed to support ultra-high-performance applications such as in-memory databases, real-time applications, large OLTP databases, and electronic health records (EHR). FlashArray//ST is attractive in particular when a customer can derive quantifiable business value directly from performance. This includes use cases—like SAP HAHA, SQL Server transaction logs, or EHR—where performance can directly impact patient outcomes. When the return on investment for performance far exceeds storage investment, the decision to go with FlashArray//ST becomes extremely clear.



FIGURE 1 Ultra-high-performance, latency sensitive workloads

Operational Simplicity with AIOps

Introducing performance-optimized storage capacity shouldn't bring unwelcome complexity with it. While legacy vendors provide complex, mutli-layerd management, only Pure Storage offers a unified storage pool and intelligent control plane to leverage proactive AIOps to prevent issues before they happen.

The intelligent control plane native to the Pure Storage platform is powered by Pure1®. It delivers the power of AIOps and AI powered insights. Unlike other solutions, data management simplicity improves completely independent of the size of your fleet, meaning as your Pure Storage platform grows, management complexity doesn't increase. In fact, complexity decreases as features are delivered non-disruptively with Purity updates. No separate licenses are required.

By moving away from complex legacy systems, Pure Storage customers gain centralized control and faster time to outcomes, reducing complexity and risk while freeing teams to focus on innovation.

Continuing Innovation for the Pure Storage Platform

The Pure Storage platform extends its capabilities to meet the needs for performance-sensitive applications with FlashArray//ST. More importantly, our Evergreen architecture enables continued innovation for FlashArray//ST mission-critical workloads, ensuring that any investment today will yield better performance, more efficiency, and superior business outcomes. No refresh cycle, no maintenance contract extortion, no planned downtime for upgrades: Pure Storage ensures an investment today continues to deliver value tomorrow.

Additional Resources

- Learn more about FlashArray//ST.



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CM-1495-01-en 05/25