FlashArray // ST™

FlashArray // XL™

FlashArray // X™

FlashArray // C™

FlashArray // E™

Performance

- Sub 150μs latency
  (FlashArray//XL R5)

- Up to 45GB/s throughput[1]
  (FlashArray//XL R5)

- Ultra low latency
  (FlashArray//ST)

- 10M 4K IOPS
  (FlashArray//ST)

Efficiency

- Average 5:1 DRR

- DFMs are up to
  3x more reliable than SSD,
  6x more reliable than HDD

- Up to 86% less energy
  consumption than
  competitive solutions

Simplicity

- AIOps with Pure1®

- Automated workflows
  with API, CLI, or GUI

- Fleet-level management
  and provisioning

Protocols

- NFS, SMB

- Fibre Channel, iSCSI,
  NVMe-oF

DATA SHEET

Pure Storage FlashArray Family

Harness all-flash storage for every use case, without compromise.

FlashArray™ is a family of scale-up, unified block and file storage systems that provide all the benefits of all-flash storage for any use case. IT environments have become increasingly complex with multiple vendors and products, resulting in unnecessary operational overhead, hidden risk, and financial strain. FlashArray is the ideal storage solution that can support all your workloads on modern technology without having to compromise on performance, price, security, and functionality. It continues to evolve to meet changing and unpredictable needs without the pain that comes with the refresh cycle.

Infrastructure to Support Rapid Innovation

The rapid pace of innovation has put more requirements on IT infrastructure, straining budgets and resources. Data storage with low performance requirements today may suddenly need to support high performance access. Storage investments need to be agile enough to support changing requirements without breaking the bank. In the era of analytics and AI, access to accumulated data is vital for driving superior business outcomes. All your data is now a source of your competitive advantage, and the right platform that can deliver data has a direct impact on your bottom line.

Traditional storage infrastructure can strand data in silos or behind performance bottlenecks. Data is tiered and located on different systems. Each system may be providing different data services built on different storage media from hard disk drives (HDD) or solid state drives (SSD). Connecting users to data requires more preplanning, additional overhead, and extra hours. Solving this with external management tools and navigating workload configurations can result in operational, security, and financial risk. The right solution can accelerate processes, rather than being a hurdle. In order to achieve this, storage systems should offer:

- Simplicity that scales
- Support for all your workloads
- Built on a foundation of modern technology
- Consistent experience across your fleet
- Flexibility to grow seamlessly

## Simplicity and Flexibility That Scales into the Future

Scalable simplicity means accomplishing more with less effort. FlashArray has simplicity as part of its DNA and has continued evolving to incorporate self-configuring, self-healing, and self-adapting to scale at the fleet level. This means that operational efficiencies are amplified as environments scale. Data that's on FlashArray can move seamlessly across arrays and is easily accessible within one global storage pool without silos or layers encumbering data access. Always-on QoS and secure multi-tenancy can ensure that workloads operate without being impacted by noisy neighbors, if necessary.

Flexibly upgrade all aspects of storage, whether performance, capacity, hardware or software–completely independently of one another. Upgrades are non-disruptive, do not require data migrations, and do not require forklift upgrades. Only Pure Storage® has a proven track record of 30,000 Ever Modern upgrades on active arrays. An investment in FlashArray is insurance against downtime when it comes to growing your environment.

All-Flash Storage for Every Workload

FlashArray delivers the benefits of flash for every use case from the highest performance at the largest scale to the most efficient archives. Data stored on any FlashArray model benefit from the efficiencies and reliability of flash storage, and are part of a global storage pool that is easily accessible and mobile within your environment when requirements change in the future.

However, not all flash storage is created equal. Other storage systems built on commodity storage drives leave value on the table. The DirectFlash® Module (DFM) represents the Pure Storage evolution of hard disk (HDD) and solid state drives (SDD). It is designed for enterprise storage and optimized to extract full performance and efficiency without being encumbered by a legacy storage drive architecture. This allows Pure Storage to innovate at a significantly faster pace tailored to meet the needs of enterprise IT. This was evidenced by Pure Storage being first to market with QLC storage arrays and industry leading density.
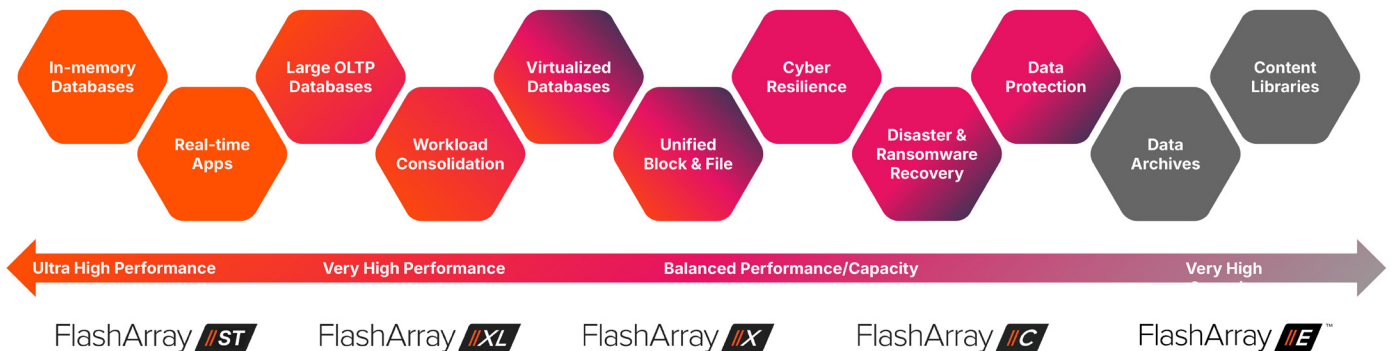
FlashArray//ST™ is optimized primarily for I/O performance, delivering 10 million IOPS and ultra low latency. It is designed for applications where speed directly translates to business outcomes. It shares critical capabilities as a member of the FlashArray family, but has rearchitected data pathways to significantly reduce latency.

FlashArray//XL™ and FlashArray//X™ are designed for extreme performance. Purpose-built to deliver the upper limits of performance possible, it offers flash storage while delivering unmatched power and space efficiency only possible with DirectFlash Modules over commodity SSDs. For mission-critical workloads that require the most performance and lowest latency, FlashArray//X is designed to deliver.

FlashArray//XL offers the most scalable and performance-dense solution designed for high performance databases, OLTP databases, OLAP systems, electronic health records, and large scale virtualization consolidation. With the introduction of FlashArray//XL170 R5, customers can expect innovations that result in 70% performance improvements and 50% increase in raw capacity over the previous generation. FlashArray//XL is designed to be the ideal solution when performance density is priority.

FlashArray//C™ delivers a blend of performance for production for operational workloads while still cost-efficient enough for fast backup/restore, and archive. Price-competitive with hybrid storage systems, FlashArray//C delivers superior performance and reliability. Operational workloads, including virtualization, file, and databases can benefit from the same data services and architecture typically reserved for enterprise hardware serving mission-critical workloads.

FlashArray//E™, as part of the Pure//E™ family of storage systems, was designed to deliver reliable storage and performance that's price-competitive with systems using hard disk drives. It is ideal for archive, snapshot retention, or content library and other backup use cases that are not performance intensive with the benefit of the reliability of flash. With the data mobility and the added benefit of power and space efficiencies superior to both HDD and SSD, FlashArray//E ensures that data is both accessible and manageable for future applications.

A Single Operating Environment Powering the Entire Pure Storage Platform

IT environments with multiple vendors and diverse product lines often lead to unnecessary management complexity. A single operating environment simplifies management, delivers a consistent user experience, enhances security, and streamlines upgrades. FlashArray is powered by Purity OS, the operating environment that underpins the Pure Storage platform. Enterprise-grade data services are included—no separate licenses are required. Unlike other architectures that rely on hardware for many features, Pure implements these capabilities directly in the operating environment. This ensures a seamless, consistent experience that is regularly updated and fully backwards compatible with previous versions of Purity OS. Even major innovations like Pure Fusion™ and secure application workspaces are built natively into the operating environment and delivered to all FlashArray customers through simple software updates–-eliminating complexity and ensuring access to the latest advancements.

Future-ready, Scalable, Flexible File Services

Modern applications need agility that yesterday's traditional file systems weren't built to support. Today's rate of change requires a solution that can dynamically change, adapt, and reconfigure in real time. Traditional file services are rigid and lock you into configuration. This results in limited agility that makes upgrades and changes slow to implement, all of which hampers growth. A file system designed years ago that's unable to scale or flex to meet new business programs can be incredibly disruptive to your overall business, not just IT operations.

Only a truly unified storage pool that can flexibly serve multiple performance requirements will ensure painless onboarding of future workloads. A consumption model that ensures a non-disruptive evolution of storage that's built on modern storage media will allow your organization to focus on driving outcomes, rather than wasting time in planning and storage management.

- Simplified management at scale ensures growth without additional overhead and risk
- Flexibility eliminates time-consuming pre-planning
- Cyber resilience means readiness for today's threat landscape
- Infrastructure efficiency keeps cost and operations in check
- Native agility and guaranteed service level agreements (SLA) ensure predictable, optimized consumption

Unified Storage That Gets Better Over TIme

Unlike traditional storage systems that are inflexible and get caught up in frequent cycles of storage refreshes, rebuys, painful data migration and downtime, FlashArray is a future-proof unified block and file storage solution that allows capacity and performance to be independently upgraded in line with needs and growth projections non-disruptively, and never reaches end-of-life.

Always-modern infrastructure: FlashArray is designed to accelerate future innovation, making it simpler to bring more denser, power efficient, and performant systems to market faster to address the evolving demands of modern workloads. Evergreen® Forever subscription makes FlashArray the last scale-up storage system you'll ever need; with it, you get the latest generation controller upgrades included every three years (Ever Modern), full trade-in credit on controller upgrades (Ever Agile), and capacity consolidation with the ability to upgrade to denser future DirectFlash Modules.

New software features and capabilities are continually added with premium-quality, proactive, and predictive support included. Evergreen//One™ offers a subscription to continuous innovation with a flexible consumption model and guaranteed SLAs, enabling you to purchase and use FlashArray the same way as cloud infrastructure offerings.

Reduced carbon footprint: Today, environmental, social, and corporate governance (ESG) initiatives are becoming more important than ever. As a result, space and power constraints are crucial considerations in storage strategy. The Pure Storage architectural design uncomplicates the relationship between data storage and a lower carbon footprint. It's designed to save data center space, with streamlined energy consumption and more efficient power and cooling. When combined, this creates a storage solution that has a significant and immediate impact on the environment while lowering overall TCO.

FlashArray Models
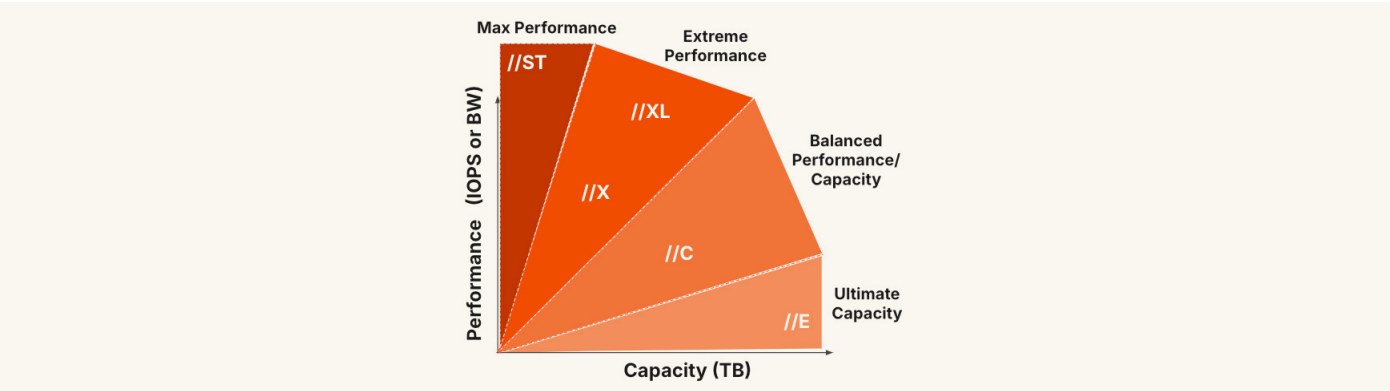
Model	Optimized For	Strengths	Capacity (raw)
FlashArray//ST	Maximum I/O Performance	10M 4K IOPS Ultra low latency	102TB 410TB (Q4 2025)
FlashArray//XL R5	Performance and Scale	150µs latency 45GB/s throughput[1]	Up to 1.9PB
FlashArray//X R5	Performance	250µs latency	Up to 1.2PB
FlashArray//C R5	Capacity and Performance	Hybrid disk economics	Up to 4.2PB
FlashArray//E	Capacity	Hard disk economics	Up to 6PB

1 | 512K 1:1 100% read

Additional Resources

- Experience FlashArray with our Test Drive.

- Visit our FlashArray family product page on the web.

- Check out our model specific datasheets:

  – FlashArray//XL

  – FlashArray//X

  – FlashArray//C

  – FlashArray//E

  – FlashArray//ST

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