Everpure FlashBlade//S

The last scale-out storage solution you'll ever need

Driven by modern, machine-generated workloads, the amount of unstructured data continues to grow at a rapid pace. Complex and siloed legacy storage systems are failing to innovate to meet its demands. Organizations need a simple, high-performance solution to maximize the value gained from this file and object data. Everpure™ FlashBlade//S™, now including next-generation FlashBlade//S R2 blades, features a unique modular architecture that allows organizations to unlock new levels of power, space, and performance efficiency using our DirectFlash® technology. This provides the flexibility to adapt and scale storage environments to power the needs of modern data and applications—now and well into the future.

Remove complexity from unstructured data storage

The rapid growth in digital transformation and IT modernization initiatives is causing an exponential growth in unstructured data, estimated to be as much as 10 times by 2030. Today, modern unstructured data needs to be organized, accessed, and processed faster than ever before. Harnessing this data is critical to business innovation and success. Other unstructured data systems can be complicated and siloed, requiring a multitude of resources to manage them efficiently. These legacy storage environments make managing budgets challenging by increasing complexity, data center footprints, and energy usage.

FlashBlade//S provides a single solution for file and object workloads that's easy to set up, manage, scale, and upgrade. It's a solution designed to deliver cutting-edge performance capabilities in multiple dimensions to simplify unstructured data access and management at any scale.

Advanced hardware and software working together

FlashBlade//S includes the industry-leading Purity operating system, our common storage OS that natively supports both file and object protocols and is designed to maximize the power of industry-leading, innovative DirectFlash technology. This gives you visibility across all workloads and removes the complexity of managing storage. It provides native multiprotocol access for NFS, S3, and SMB and can support billions of files and objects in a single system. From tens of terabytes to multiple petabytes of data, FlashBlade//S is designed to easily scale out to grow with your unstructured data needs for analytics, AI and ML, data protection and rapid restore, high-performance computing (HPC), and other data-driven file and object use cases in the areas of healthcare, genomics, electronic design automation (EDA), financial services, and more. With FlashBlade//S R2, customers benefit from up to 50% faster performance than the previous generation across key workloads, making it ideal for cutting-edge use cases in AI, HPC, genomics, data analytics, and cyber resiliency.

Simplicity

- Consolidated platform for file and object storage
- Easy to set up, manage, and upgrade
- Integrated networking removes complexity

Flexibility

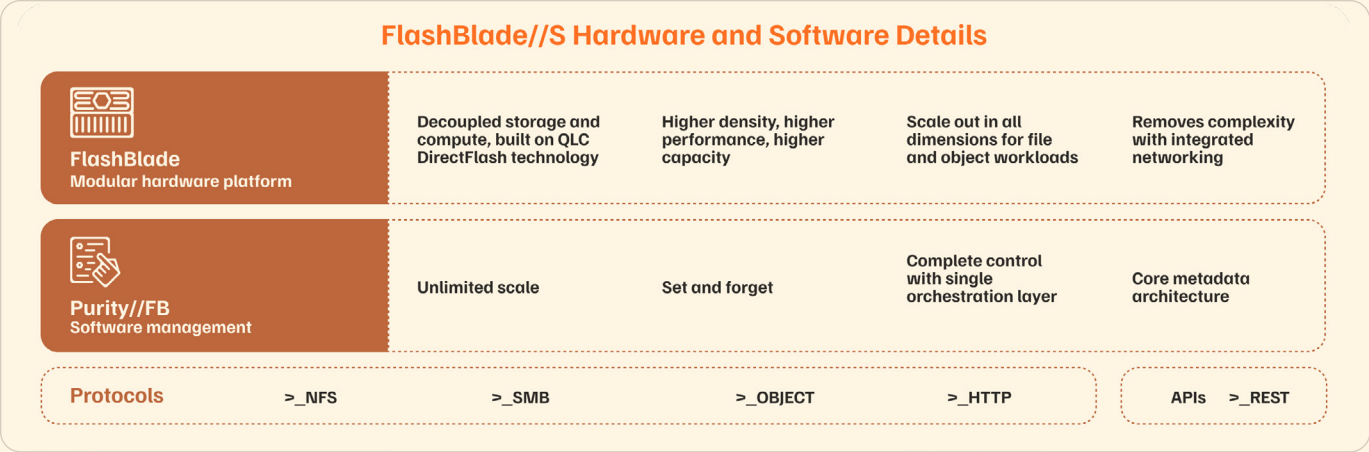
- Modular disaggregated architecture for configuration flexibility
- Scale capacity and performance based on evolving workloads
- Flexible consumption choices

Performance

- Up to 20–25% better multidimensional performance than competitors for RAG, training and inference, and simulation workloads
- DirectFlash architecture without expensive caching solutions
- Delivers industry-leading efficiency per rack unit, watt, and terabyte

Forever

- Nondisruptive upgrades with Evergreen®
- Unmatched power, space, and cooling efficiency to meet ESG requirements
- All-inclusive future software



A solution for the next generation of data

FlashBlade//S is the result of our co-innovation of hardware and software. Most storage systems exist on one of two extremes: either disk or hybrid solutions for capacity-optimized workloads, or all-flash solutions that require massive caching to achieve performance. Because of its design, FlashBlade//S can target a wide variety of workload profiles across both spectrums.

Say goodbye to traditional disk-based and hybrid architectures: Built using DirectFlash architecture, FlashBlade//S is the ideal foundation for modern workloads. It's a unified, fast file and object storage system that provides rich data services with higher density and capacity than ever before. FlashBlade//S is designed to easily support the most demanding unstructured data workloads, without compromising on system performance or efficiency.

Unmatched performance efficiency: Architectures that use off-the-shelf solid-state drives (SSDs) have an internal controller to manage the flash media on each specific drive without any knowledge of what's happening at the system level. In contrast, FlashBlade//S uses innovative DirectFlash Modules, enabling the storage operating system to manage that media on a global level. The DirectFlash Modules include a small amount of NVRAM that scales as the system grows. Purity//FB, the operating system for FlashBlade//S, manages all system resources—including blades and DirectFlash Modules—at a global level. Global media management enables FlashBlade//S DirectFlash Modules to unlock as much as 20% more capacity from NAND when compared to competitors using off-the-shelf SSDs. This delivers more consistent performance, better reliability, and higher media endurance without requiring massive cache. FlashBlade//S R2 blades further amplify this advantage by providing up to 20–25% higher performance over competing solutions, especially in RAG, inference, and simulation workloads.

Take control of your unstructured data: FlashBlade//S enables enterprise-level data management at scale. Using a distributed metadata architecture, it offers multidimensional performance on a consolidated platform with NFS, SMB, and S3 protocol access. The cloud-based Pure1® data management platform provides a single view to monitor, analyze, and optimize your storage from anywhere.

Scale compute and storage independently: Designed with a unique modular architecture that allows you to easily increase capacity or performance, FlashBlade//S is a customizable platform that can be configured based on specific workload requirements while minimizing stranded capacity. Heterogeneous capacity expansions on FlashBlade//S give organizations the opportunity to scale their storage in a way that matches their growth requirements—whether it's small, incremental steps or major leaps—without sacrificing reliability or efficiency. This provides organizations the flexibility to easily adapt based on data growth projections and evolving storage needs.

Avoid legacy data tiering inefficiencies with Zero Move Tiering: This is a revolutionary approach to data tiering that enables intelligent data access across heterogeneous all-flash clusters at a granular file level and optimizes both performance and cost. Zero Move Tiering does not require the data to move and ensures seamless access to both hot and cold data, providing unmatched benefits including improved performance predictability, enhanced infrastructure agility, and improved cost efficiency.

Enable global collaboration with efficient, near-instant file access with Rapid Replicas: Built directly into FlashBlade®, Rapid Replicas make remote collaboration as fast and efficient as working locally. They simplify global data distribution by replicating file metadata across geographically dispersed sites in near real time, without the need for full data-set replication. With metadata syncing every five minutes and data transferred only on access, Rapid Replicas reduce bandwidth consumption and enable seamless, on-demand file access. This resilient architecture supports multiple target sites, including hybrid and burst compute workflows for demanding workloads such as EDA, AI/ML, and genomics.

Performance Improvements with FlashBlade//S R2

AI | HPC
Speed up AI training and inference
Accelerate time to insight for AI workloads by 2.6X*

EDA
Faster chip design to market
Up to 2X faster design cycles*

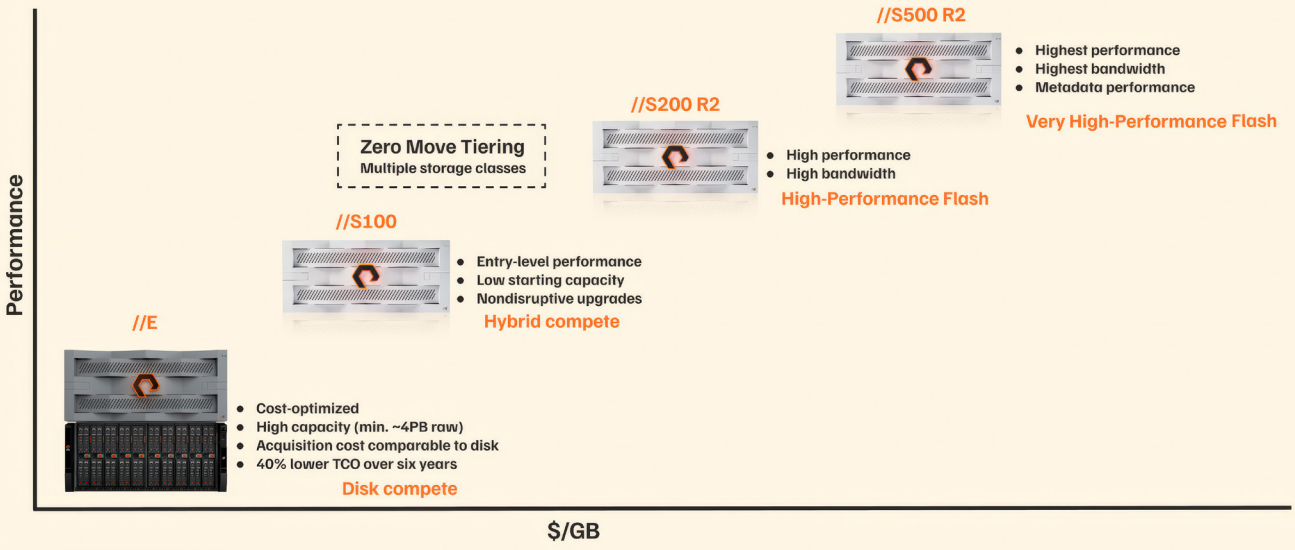
Genomics
Boost genome processing capacity
Complete up to 2.7X more WGS sequencing/day/node*

Software Development
Enhance parallel compile times
Shorten build cycles by 40%*

*compared to previous generation

Eliminate dependency on disk-based technologies: Tackle massive unstructured data growth and management head on, without worrying about the inability of disk-based technologies to handle exponential growth. The FlashBlade product family also expands to FlashBlade//E™, a modern all-flash, unified file and object storage solution built to deliver the economics at scale for repository workloads. Unlike legacy disk-based storage solutions, FlashBlade//E is an efficient, effortless, and everlasting data storage solution that can scale to meet any repository data requirements at the lowest long-term cost.

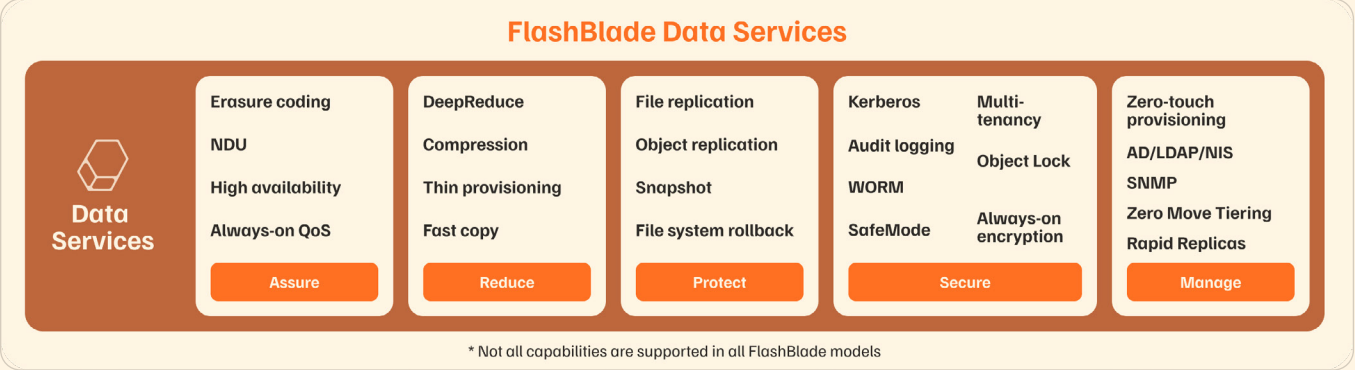
The FlashBlade Product Family



Note: Now available with next-generation FlashBlade//S200 R2 and FlashBlade//S500 R2 blades, which offer significantly higher performance while maintaining full compatibility with the modular architecture.

Purity: The common storage OS powering the Everpure Platform

Purity OS is at the heart of the Everpure Platform. Purity for FlashBlade enables it to scale tremendously in capacity and performance. Purity provides an all-inclusive software with enterprise-grade data services. Purposefully architected to run on FlashBlade all-flash hardware, Purity for FlashBlade has a variable-block metadata engine and scale-out metadata architecture. It can handle billions of files and objects and delivers unmatched performance for any workload, whether with sequential or random access. Purity also delivers a rich set of enterprise capabilities including compression, global erasure coding, always-on encryption, SafeMode™, file replication, object replication, and multiple other features.



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, FlashBlade//S is a future-proof file and object storage solution. It allows capacity and performance to be independently upgraded in line with needs and growth projections, nondisruptively, and never reaches end-of-life.

Always-modern infrastructure: FlashBlade//S is designed to accelerate future innovation, making it simpler to bring more dense, power-efficient, and performant systems to market faster to address the evolving demands of modern file and object workloads. An Evergreen//Forever™ subscription makes FlashBlade//S the last scale-out storage system you'll ever need; with it, you get the latest generation blade upgrades included every three years (Ever Modern), trade-in credit on blade model upgrades (Ever Agile), and capacity consolidation with the ability to upgrade to denser future DirectFlash Modules as they become available.

New software features and capabilities are continually added with premium-level, proactive, and predictive support included. Evergreen//One™ offers a subscription to continuous innovation with a flexible consumption model and guaranteed SLAs, allowing you to achieve the benefits of FlashBlade//S the same way as other popular cloud-based infrastructure offerings.

Reduced carbon footprint: Today, more than ever, environmental, social, and corporate governance (ESG) initiatives are becoming more important. As a result, space and power constraints are now becoming crucial considerations in storage strategy. The architectural design of Everpure 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.

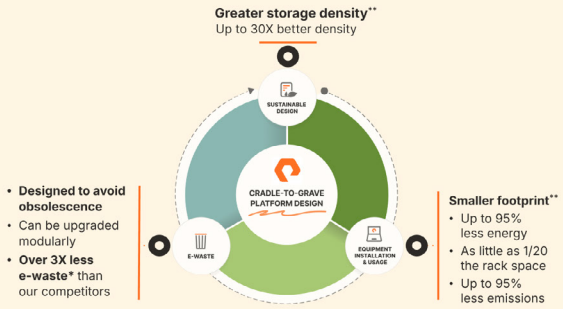
Everpure

FlashBlade Sustainability Advantages

Sustainable Data Storage by Design

The FlashBlade efficiency advantage: Lower energy and carbon footprint

- **Next-generation DirectFlash technology**
- **Innovative, modular, disaggregated architecture**
- **Proven Purity//FB software**
- **Engineered for Evergreen agility and innovation**



Up to 5TB per watt (effective capacity)

* Source: Everpure Platform Creates Over 3x Less E-waste Than Competitors | ** Compared to similar competitive all-flash systems

Technical specifications

Scalability	Capacity	Connectivity	Physical
Start with a minimum of 7 blades and scale up to 10 blades in a single chassis	Up to 4 DirectFlash Modules per blade • //S100*: 18TB and 37TB DirectFlash Modules • //S200 R2 and //S500 R2: 37TB, 75TB, 150TB, or 300TB DirectFlash Modules	Max uplink networking capacity: 16x 400GbE (multi-chassis)	• 5U per chassis • 1U per XFM • Dimensions (per chassis): 8.59" x 17.43" x 32.00" • Dimensions (per XFM): 1.7" x 17.26" x 25.89"

• Independently scale capacity and performance up to 10 chassis with //S200 R2 and //S500 R2
• 2 XFMs required in multi-chassis configurations
• FlashBlade//S200 R2 and FlashBlade//S500 R2 blades with up to 50% higher performance
	• //S100*: Up to 150TB per blade
	• //S200 R2 and //S500 R2: Up to 1,200TB per blade
		Future-proof midplane	• Per fully populated chassis:
			//S100: ~2,250W
			//S200 R2: 2,500W
			//S500 R2: 2,750W
			(nominal at full configuration)
			• Per XFM: 310W

Discover FlashBlade//S for Your Unstructured Data Storage Demands

*S100 is available in single-chassis configuration

Visit Our Website | **800.379.PURE**

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