



DATA SHEET

Pure Storage FlashBlade//S

The last scale-out storage platform you'll ever need.

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

- All-QLC architecture without expensive caching solutions
- Delivers industry-leading efficiency per RU, watt, and TB
- Multi-dimensional performance

Forever

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

Driven by modern, machine-generated workloads, the amount of unstructured data continues to grow at a rapid pace. Complex and siloed legacy storage platforms 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. Pure Storage[®] FlashBlade//S[™] has a unique modular architecture that enables organizations to unlock new levels of power, space, and performance efficiency using an all-QLC design. 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

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 platforms can be complicated and siloed, requiring a multitude of resources to manage them efficiently.

FlashBlade//S provides a single solution for file and object workloads that's easy to set up, manage, scale, and upgrade. It's a platform designed to deliver cutting-edge performance capabilities in multiple dimensions to uncomplicate your unstructured data storage—forever.

Advanced Hardware and Software Working Together

FlashBlade//S includes the most advanced version of our Purity//FB software, designed together to maximize the power of Pure's industry-leading innovative FlashBlade[®] hardware. This gives you visibility across all workloads and removes the complexity of managing storage by combining compute, storage, and networking onto a single and unified platform. It provides native multi-protocol 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, artificial intelligence (AI) and machine learning (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.

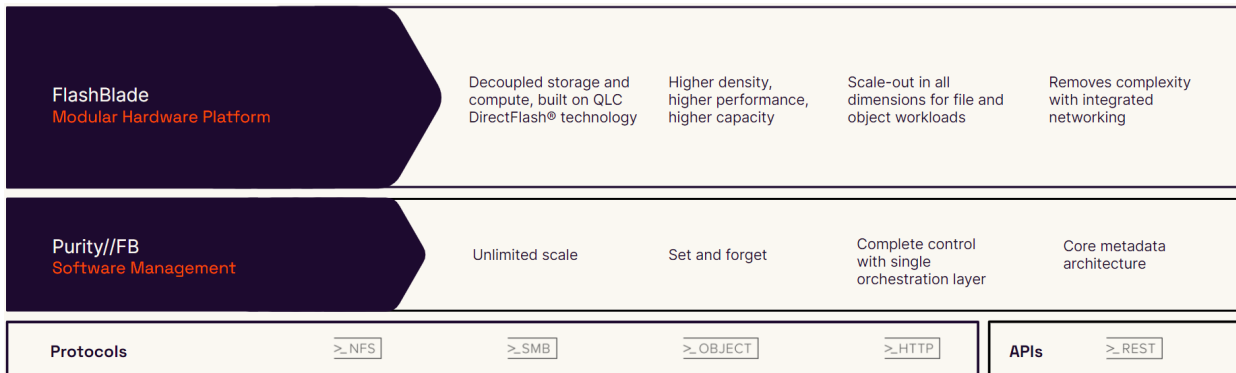


Figure 1: FlashBlade//S hardware and software details

A Platform for the Next Generation of Data

FlashBlade//S is the result of our co-innovation of hardware and software. Most storage platforms exist on one of two extremes: either disk or hybrid solutions for capacity-optimized workloads, or all-flash solutions that use TLC or QLC with 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® Modules and all-QLC architecture, FlashBlade//S is the ideal foundation for modern workloads. It’s a unified fast file and object (UFFO) storage platform 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 systems 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 platform 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 storage class memory (SCM) cache.

Take control of your unstructured data: FlashBlade//S enables enterprise-level data management at scale. Using a distributed metadata architecture, it offers multi-dimensional 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 gives you the ability to tailor your configuration for specific workload requirements. It provides the flexibility to easily adapt to your data growth projections and evolving storage needs.



Purity//FB

Purity is the heart of FlashBlade//S, which enables it to scale tremendously in capacity and performance. Purity//FB is an all-inclusive software with enterprise-grade data services. Purposefully architected to run on FlashBlade's all-flash hardware, Purity//FB 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 it's with sequential or random access. Purity//FB delivers a rich set of enterprise capabilities including compression, global erasure coding, always-on encryption, SafeMode™, file replication, object replication, and multiple other features.

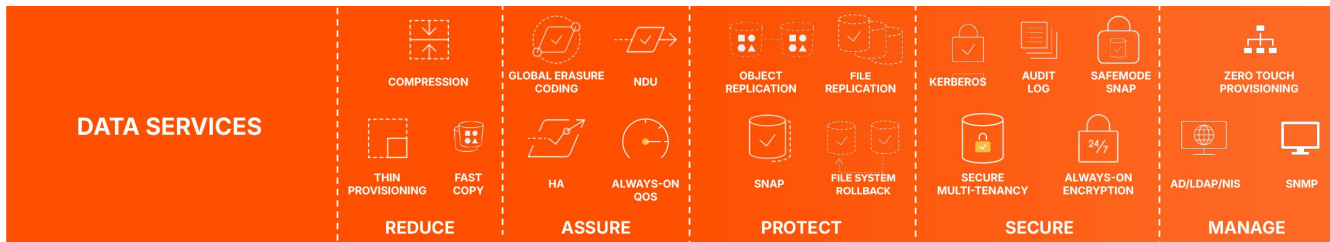


Figure 2: FlashBlade data services

Storage That Gets Better Time

Always-modern infrastructure: FlashBlade//S 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 file and object workloads. An Evergreen subscription makes FlashBlade//S the last scale-out storage platform you'll ever need; with it, you get the latest generation blade upgrades included every three years (Ever Modern), full 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, enabling you to purchase 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. Pure's 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.



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: 37TB DirectFlash Modules at launch, with 18TB DirectFlash Modules to follow //S200 and //S500: 24TB, 48TB or 75 TB DirectFlash Modules	Max Uplink Networking Capacity 16 x 200GbE	5U per chassis 1U per XFM Dimensions (per chassis) 8.59" x 17.43" x 32.00" Dimension (per XFM): 1.7" x 17.26" x 25.89"
Independently scale capacity and performance up to 10 chassis with //S200 and //S500. 2XFM required in multi-chassis configurations	//S100: Up to 150TB per blade //S200 and //S500: Up to 300TB per blade	Future-proof midplane	Per fully-populated chassis //S100: 2500W //S200: 2500W //S500: 2600W (nominal at full configuration) Per XFM: 310W

Table 1: Technical specifications

Additional Resources

- Discover [FlashBlade//S](#) for your unstructured data storage demands.

purestorage.com

800.379.PURE

