DATA SHEET

# Pure Storage® FlashArray//C

Consolidate and simplify with capacity-optimized storage.

**No compromises**

Provide capacity-optimized apps with the power of all-flash NVMe. Deliver consistent, reliable experience across workloads.

**Enterprise-grade storage**

Provide QLC-optimized Evergreen Storage™ with data reduction, built for 99.9999% availability, replication, and cloud portability.

**Hyper consolidation**

Hyper-consolidate large data stores with up to 5.2PB effective (1.39PB raw) storage in a tiny, three-, six-, or nine-rack unit.

**Better TCO**

Pair hybrid storage economics with less management overhead, power, cooling, and data-center real estate.

Pure Storage FlashArray//C lets you consolidate workloads and simplify storage with consistent all-flash performance at a lower TCO than hybrid storage.

Most business-critical applications today run on high-performance all-flash storage arrays, but capacity-oriented applications still suffer from management complexity, inconsistent performance, and lack of modern data services of hybrid flash and legacy disk systems. FlashArray//C provides a 100% NVMe all-flash foundation for capacity-oriented applications, test and development workloads, multi-site disaster recovery, and data protection at hybrid storage economics. Scale up to 5.2PB effective storage in just three- to nine-rack units. Maximize results and flexibility for high-capacity applications on-premises and easily connect to the cloud. With Pure Evergreen™, you can upgrade performance, capacity, and features over time without disruption.

All-flash storage solutions introduced simplicity, efficiency and rich data services to performance-sensitive enterprise applications. It's time capacity-oriented applications see these indispensable benefits as well. With the introduction of FlashArray//C, Pure Storage is bridging the divide between performance-optimized and capacity-optimized applications. FlashArray//C is capacity-optimized and extends the Modern Data Experience™ to all applications.

The top four use cases for Pure FlashArray//C are:

- Workload consolidation.
- Data protection and disaster recovery.
- Policy-based VM-tiering.
- Multi-cloud test/dev.

FlashArray //C

## All-QLC FlashArray//C use cases include:

Workload Consolidation

Data Protection

Disaster Recovery

File Services

**FIGURE 1:** FlashArray//C use cases**

## Hyper-Consolidate Large Data Stores

Pure FlashArray//C densities scale from 1.3PB to 5.2PB in a tiny three- to nine-rack unit array and deliver consistent performance that comes with an all-flash 100% NVMe storage solution. You can now consolidate test/dev, non-critical virtual machines, data-retention/disaster recovery, and all other capacity-optimized applications on a single array. Let your IT organization drive simplicity into the infrastructure and eliminate complex siloed approaches to deploying these applications across multiple disparate hybrid disk-based solutions.

**FIGURE 2:** FlashArray//C60 capacity scaling

## Simplicity by Design

FlashArray//C has the power to simplify everything: The hardware, software, and cloud management experiences are co-designed to make everything work.

Examples of this simplicity include:

- One box, 30-minute installation with no manual required (with available Pure Professional Services or partner installation).
- Only six cables.
- All array software included.
- Data-reduced end-to-end encryption.
- No performance tuning.
- APIs for automation.
- AI-driven cloud management.
- Proactive support.

## Cloud-based Management

The Pure1® platform provides simple cloud-based management and effortless predictive support with full-stack analytics and the AI-driven power of Pure1 Meta™. Pure1 provides a snapshot catalog of all your backups in one place, whether the target is another FlashArray™, FlashBlade™, another NFS target, or a public cloud like Amazon S3.

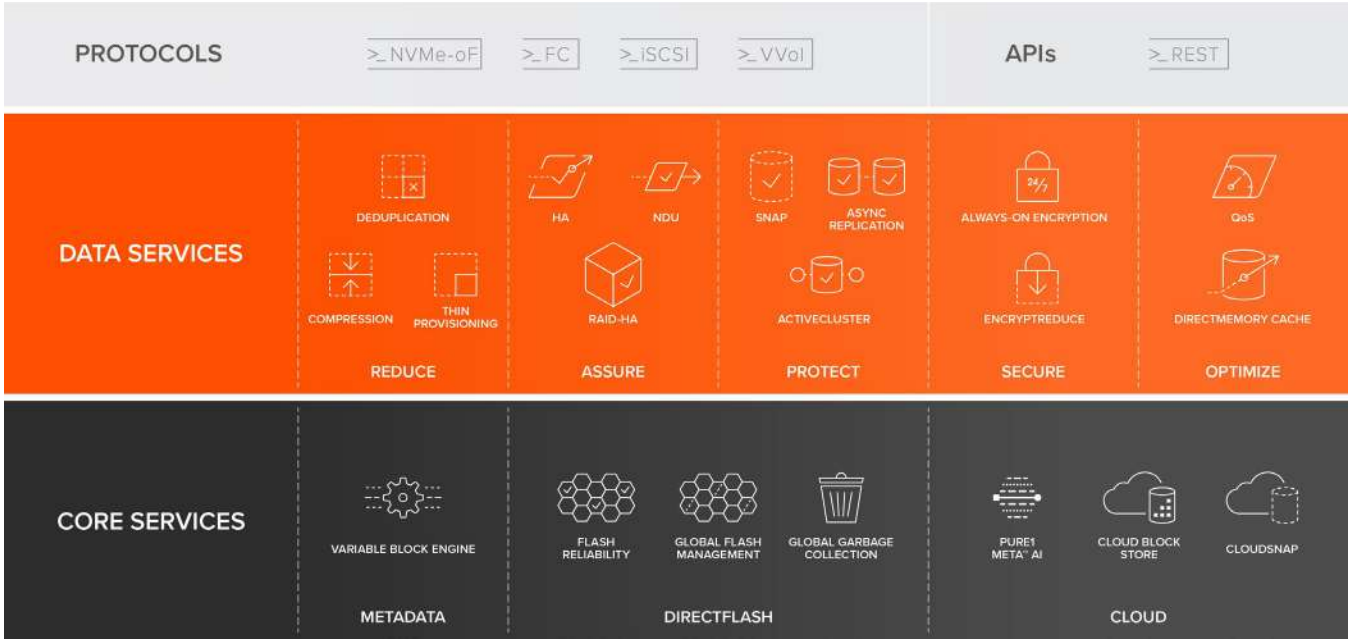


**FIGURE 3:** Purity//FlashArray Features*

## Purity: The Software-Defined Heart of FlashArray

Purity for FlashArray delivers rich, enterprise data services, DirectFlash™ global flash management, and Evergreen improvements with every release.

ActiveCluster™ for business continuity and disaster recovery, QoS, vVols, NVMe-oF, Snap to NFS, Purity CloudSnap™, and EncryptReduce are all examples of new features provided with non-disruptive Purity upgrades. With every array, you get built-in Purity storage services, APIs, and advanced data services**.

## DirectFlash™

FlashArray moves beyond the legacy SSD architectures that have flash pretending to be a hard disk. Instead, DirectFlash speaks directly to raw NAND with a super-efficient NVMe protocol and leverages NVMe-oF. DirectFlash includes multiple components:

**DirectFlash Software:** DFS manages array I/O globally, for a faster, more efficient architecture. DFS provides detailed I/O scheduling and performance management, making I/Os deterministic and reducing average latency by reducing the number of slow I/Os that would often occur in SSD architectures.

**DirectFlash Module:** DFM is a Pure-designed flash module that connects raw flash directly to the FlashArray storage via NVMe. Unlike traditional SSDs that use a flash controller or flash translation layer, DFM is just raw flash. This design removes performance roadblocks of SSDs used by many legacy storage architectures.

**DirectFlash Shelf:** DirectFlash Shelf is used to add additional NVMe capacity to a FlashArray//C, and is external to the array chassis. Instead, it's connected to the chassis via NVMe-oF protocol, RDMA over converged (RoCE), leveraging 50Gb-per-second Ethernet. The shelf maintains the ability to support different sizes of DFMs as flash density improves and new forms become available, such as SCM, QLC, and others.

**DirectFlash Fabric:** DirectFlash Fabric lowers network latency dramatically with the added benefits of enabling enterprise-class reliability and data services via shared storage versus DAS. NVMe-oF enables massive optimization between the storage controllers and host over fast networking, which enables DirectFlash Fabric to deliver greater performance and efficiency gains, including host CPU offload benefits.

## Evergreen Storage

Deploy it once and enjoy a subscription to continuous innovation as you expand and improve performance, capacity, density, and/or features for 10 years or more—all without downtime, performance impact, or data migrations. Pure has engineered compatibility for future technologies directly into the product via the modular, stateless architecture of FlashArray. This means you can non-disruptively upgrade and expand the equipment you already own. Evergreen programs like Free Every Three and Upgrade Flex provide full trade-in value when upgrading controllers, giving organizations the agility they need to grow and modernize as needed.

The Capacity Consolidation program keeps your storage modern and dense as you expand. With Evergreen Storage, you don't have to re-buy TBs you already own. Keep your storage evergreen, modern and dense. And always meet your business needs. Pure uniquely offers all of our core solutions either as products (CAPEX) or as services (OPEX) via our Pure as-a-Service portfolio.

## Technical Specifications

| | Capacity | Physical |
|---|---|---|
| **//C60-366** | Up to 1.3PB effective capacity**<br>366TB raw capacity** | 3U; 1000–1240 watts (nominal–peak)<br>97.7 lbs (44.3 kg) fully loaded<br>5.12” x 18.94” x 29.72” chassis |
| **//C60-494** | Up to 1.9PB effective capacity**<br>494TB raw capacity** | 3U; 1000–1240 watts (nominal–peak)<br>97.7 lbs (44.3 kg) fully loaded<br>5.12” x 18.94” x 29.72” chassis |
| **//C60-840** | Up to 3.2PB effective capacity**<br>840TB raw capacity** | 6U; 1480–1760 watts (nominal–peak)<br>177.0 lbs (80.3kg) fully loaded<br>10.2” x 18.94 x 29.72” chassis |
| **//C60-1186** | Up to 4.6PB effective capacity**<br>1.2PB raw capacity** | 6U; 1480–1760 watts (nominal–peak)<br>185.4 lbs (84.1 kg) fully loaded<br>15.35” x 18.94 x 29.72” chassis |
| **//C60-1390** | Up to 5.2PB effective capacity**<br>1.4PB raw capacity** | 9U; 1960–2280 watts (nominal–peak)<br>273.2 lbs (123.9 kg) fully loaded<br>15.35” x 18.94 x 29.72” chassis |

## Additional Resources

- FlashArray//X Data sheet
- Purity Data sheet
- Pure1 Data sheet
- ActiveCluster

* Not all Purity features supported on all FlashArray models.
** Not all features available at General Availability.
*** Effective capacity assumes HA, RAID, and metadata overhead, GB-to-GiB conversion, and includes the benefit of data reduction with always-on inline deduplication, compression, and pattern removal. Average data reduction is calculated at 5-to-1 and does not include thin provisioning.



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