

## DATA SHEET



# Pure Storage FlashArray//C

Consolidate, accelerate, and protect your data with capacity-optimized storage.

## Consistent, Reliable Experience

All-flash NVMe Evergreen Storage™ with data reduction, built for 99.9999% availability, replication, and cloud portability.

## Hyper-consolidation

Consolidate massive data stores with up to 7.3PB effective (1.9PB raw) in a three-, six-, or nine-rack unit.

## Built-in Symmetric Clustering

ActiveCluster provides zero RPO and RTO, is easy to use, and comes built-in at no extra cost.

## 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 with consistent all-flash NVMe performance. You'll get unparalleled data protection—at a lower TCO than hybrid storage.

Today, most business-critical applications run on high-performance all-flash storage arrays, but some capacity-oriented applications still use hybrid flash and legacy disk systems. These legacy systems suffer from inconsistent performance, complex management tools, and a lack of modern data services.

FlashArray//C provides a 100% NVMe all-flash foundation for capacity-oriented applications, test and development workloads, [multisite disaster recovery](#), and [data protection](#). Your organization can easily improve business continuity with Pure's ActiveCluster™ fully symmetric active/active bidirectional synchronous replication solution, which provides RPO zero and automatic transparent failover for RTO zero – and supports both Fibre Channel (FC) and TCP/IP environments.

Enterprises running Fibre Channel environments also benefit from the performance boost that NVMe running over FC provides as a front end NVMe-oF transport. FC-NVMe and FC-SCSI protocols can exist on different ports on the same FlashArray//C, streamlining your transition to an end-to-end NVMe solution.

With FlashArray//C, you can scale up to 7.3PB effective storage in 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. Now, capacity-oriented applications gain these important benefits as well. With the Purity storage operating environment, Pure Storage delivers a comprehensive solution with FlashArray//X for your performance-optimized applications, and FlashArray//C for your capacity-optimized applications.

Popular use cases for Pure FlashArray//C include:

- Workload consolidation
- Data protection and disaster recovery
- Policy-based VM-tiering
- Multicloud test/dev
- User file shares

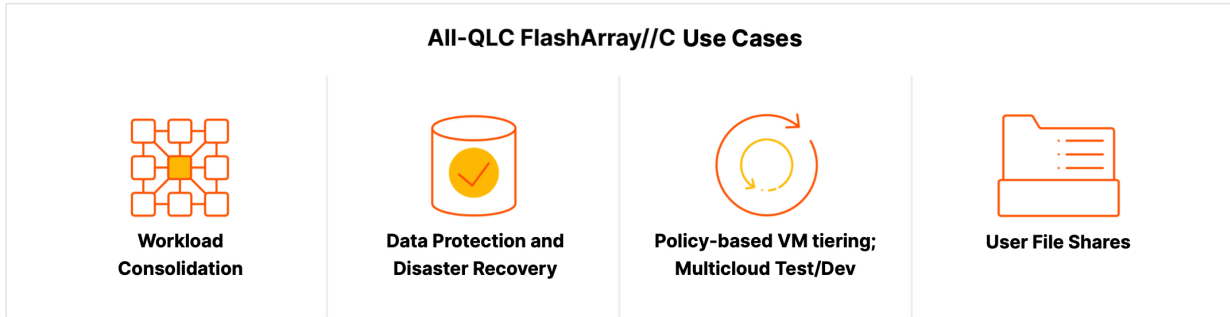


Figure 1. FlashArray//C use cases\*\*

## Hyper-Consolidate Large Data Stores

Pure FlashArray//C densities scale from 638TB to 7.3PB in compact three- to nine-rack unit arrays, 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 your infrastructure and eliminate complex siloed approaches to deploying these applications across multiple disparate hybrid disk-based solutions.

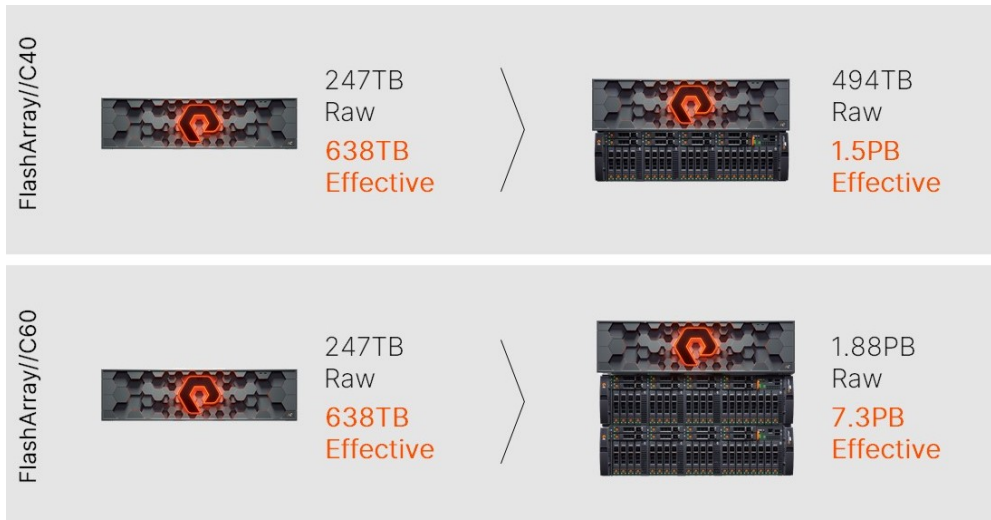


Figure 2. FlashArray//C60 capacity scaling



## Simplicity by Design

FlashArray//C has the power to simplify everything: Your 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 (with available Pure Professional Services or partner installation)
- Data-reduced end-to-end encryption
- No performance tuning required
- APIs for automation
- Only six cables
- AI-driven cloud management
- All array software included
- 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™, a FlashBlade®, another NFS target, or a public cloud like Amazon S3.

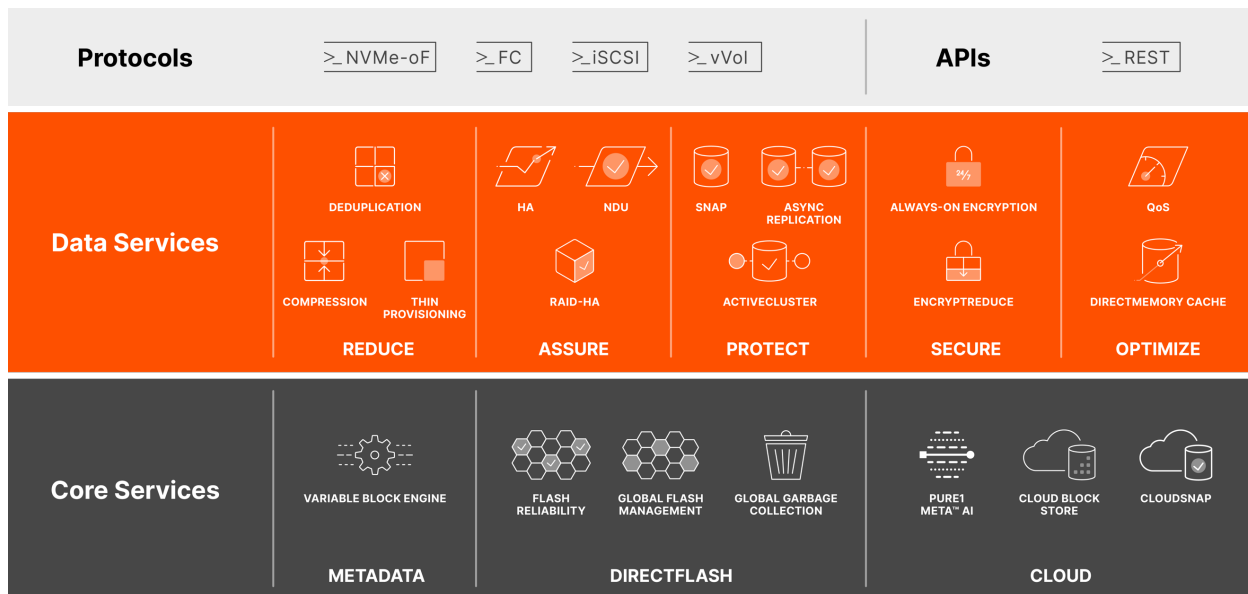


Figure 3. Purity//FlashArray Features

## 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):** DFS manages array I/O globally, for a faster, more efficient architecture. DFS provides detailed I/O scheduling and performance management. This makes 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):** 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 with 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

With [Evergreen Storage](#), you can deploy 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 upgrade non-disruptively 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 you the agility you need to grow and modernize.

The Capacity Consolidation program keeps your storage modern and dense as you expand. With Evergreen Storage, you don't have to re-buy terabytes 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
<b>//C40</b>	Up to 1.9PB/1.4TiB effective capacity* Up to 494TB/449TiB raw capacity	3U 97.7 lbs (44.3Kg) fully loaded 5.12" x 18.94" x 29.72" chassis
<b>//C60</b>	Up to 7.3PB/6.6PiB effective capacity Up to 1.9PB/1.7PiB raw capacity	3U-9U 97.7-185.4 lbs (44.3-84.1 kg) fully loaded 5.12"-18.94" x 18.94" x 29.72"

\*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."

## Additional Resources

- [FlashArray//X data sheet](#)
- [Purity data sheet](#)
- [Pure1 data sheet](#)
- [ActiveCluster](#)

\*\* Not all features available at General Availability.

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