Pure Storage FlashArray
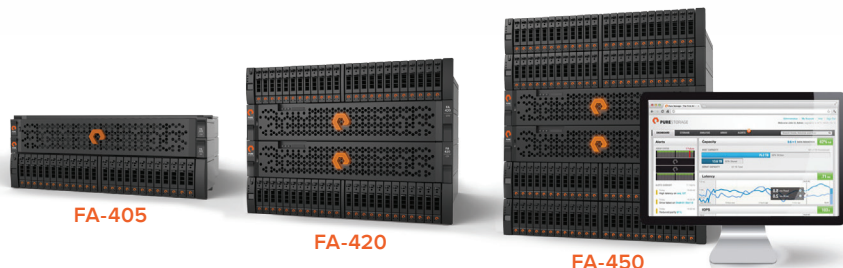
THE ALL-FLASH ENTERPRISE ARRAY

All-flash enterprise storage for less than the cost of spinning disk.

FA-405

FA-420

FA-450

Accelerate Databases and Applications

- Speed transactions by 10x with consistent low latency
- Enable online data analytics across wide datasets
- Mix production, analytics, dev/test, and backup workloads without fear

Virtualize and Consolidate Workloads

- Easily accommodate the most IO-hungry Tier 1 workloads
- Increase consolidation rates, reducing servers
- Simplify VI administration and accelerate common administrative tasks

Deliver the Ultimate Virtual Desktop Experience

- Support demanding users with better performance than physical desktops
- Scale without disruption from pilot to >1000's of users
- Experience all-flash performance for under $100/desktop

Protect and Recover Vital Data Assets

- Provide an always-on global protection for business-critical data
- Maintain performance, even under failure conditions
- Recover instantly with FlashRecover

The simplest storage you'll ever use

LOVE YOUR STORAGE GUARANTEE

No more managing performance, RAID, tiers or caching. FlashArray makes storage simple. And if you don't love it, return it for a full refund. It's the broadest guarantee in the storage industry. For details visit **purestorage.com/guarantee**.

A better approach to storage acquisition and lifecycles

Tired of forklift upgrades and maintenance extortion? Incrementally expandable and always non-disruptive, we make software and hardware upgrades easy and economical.
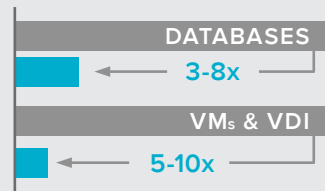
FOREVER FLASH

FlashReduce
INLINE DATA REDUCTION

- 5-10x space savings
- Inline compression and deduplication

DATABASES
3-8x

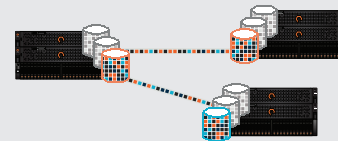| VMs & VDI |
| --- |
| **5-10x** |

FlashProtect
ENTERPRISE RESILIENCY

- Non-disruptive everything
- >99.999% availability
- High-availability with full performance

FlashRecover
GLOBAL DATA PROTECTION

- Space-efficient snapshots
- Replication and recovery leverage space efficiency
- Complete automation via protection policies

Consistent Performance
100% FLASH RESULTS
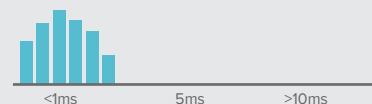
- >10x faster than disk
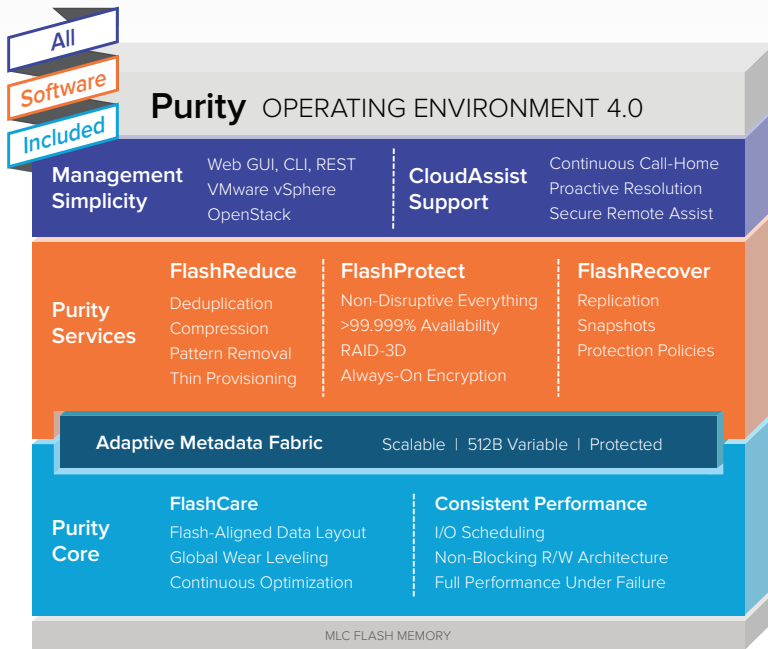- 100,000s of IOPS
- <1ms consistent latency

DISK WITH FLASH CACHE:

<1ms   5ms   >10ms

PURE STORAGE ALL FLASH:

<1ms   5ms   >10ms

PURESTORAGE

sales@purestorage.com | 800-379-PURE | @purestorage

The FlashArray is powered by the **Purity Operating Environment,** storage software designed for 100% flash:

All
Software
Included

Purity OPERATING ENVIRONMENT 4.0

Management Simplicity	Web GUI, CLI, REST VMware vSphere OpenStack	**CloudAssist Support**	Continuous Call-Home Proactive Resolution Secure Remote Assist

Purity Services	**FlashReduce** Deduplication Compression Pattern Removal Thin Provisioning	**FlashProtect** Non-Disruptive Everything >99.999% Availability RAID-3D Always-On Encryption	**FlashRecover** Replication Snapshots Protection Policies

Adaptive Metadata Fabric	Scalable | 512B Variable | Protected

Purity Core	**FlashCare** Flash-Aligned Data Layout Global Wear Leveling Continuous Optimization	**Consistent Performance** I/O Scheduling Non-Blocking R/W Architecture Full Performance Under Failure

MLC FLASH MEMORY

"Pure's performance is great – in fact it's over-performing, doing even more than what we need as we add additional data sets."

- **Brent Allen**
Director of Infrastructure

Skullcandy

"Previously, this process typically took up to 11 days – which is why we only used to do it once per quarter. With the FlashArray we can now snapshot all of our SQL databases, copy them, and mount the copies to a scrubbing server in under five minutes."

- **David Gloff**
IT Operations Manager

SUREPAYROLL
A Paychex® Company

"Flash was the right answer for all our OLTP environments, while it was a slight capex cost premium for us initially, it ended up driving our TCO much lower and enabled developers to do more, storage engineers to do a lot more work, database administrators to sleep at night, and just made everything a lot easier."

- **Justin Stottlemyer**
Fellow

Shutterfly.

"I don't ever need to use a physical host again. The FlashArray enables me to virtualize everything."

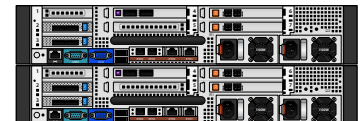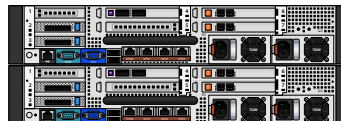- **Dave Comben**
*Head of IT
Infrastructure Services*

Investec
Asset Management

	FA-405	FA-420	FA-450
FRONT VIEW (dual controllers)			
REAR VIEW (dual controllers)			
CAPACITY	• Up to 40+ TBs effective capacity • 2.75-11 TBs raw capacity	• Up to 125+ TBs effective capacity • 11-35 TBs raw capacity	• Up to 250+ TBs effective capacity • 34-70 TBs raw capacity

Effective capacity assumes HA, RAID, and metadata overhead, GB-to-GiB conversion, and includes benefit of data reduction with always-on inline deduplication, compression & pattern removal. Average data reduction is calculated at 6-to-1. Some customers see data reduction in excess of 20-to-1. Effective capacity has no upper limit and will vary depending on workload.

PERFORMANCE	• Up to 100,000 **32K** IOPS @ <1ms average latency • Up to 3 GB/s bandwidth	• Up to 150,000 **32K** IOPS @ <1ms average latency • Up to 5 GB/s bandwidth	• Up to 200,000 **32K** IOPS @ <1ms average latency • Up to 7 GB/s bandwidth

Why does Pure Storage quote 32K, not 4K IOPS? The industry commonly markets 4K IOPS benchmark to make numbers look high, but real-world environments are dominated by IO sizes of 32K or larger. Pure Storage has optimized the FlashArray for the real-world. FlashArray adapts automatically to 512B-32KB IO for superior performance, scalability, and data reduction.

HOST CONNECTIVITY	• 8 Gb/s Fibre Channel • 10 Gb/s Ethernet iSCSI • Replication ports	• 8 Gb/s Fibre Channel • 10 Gb/s Ethernet iSCSI • Expansion slot (FC or iSCSI) • Replication ports	• 16 Gb/s Fibre Channel • 10 Gb/s Ethernet iSCSI • Expansion slot (FC or iSCSI) • Replication ports
SIZE, POWER & WEIGHT	• 2 x 1U HA Controllers • 330 Watts/controller • 33.5 pounds/controller • 1.72" x 17.08" x 23.74"	• 2 x 2U HA Controllers • 400 Watts/controller • 44 pounds/controller • 3.44" x 17.08" x 29.75"	• 2 x 2U HA Controllers • 500 Watts/controller • 44 pounds/controller • 3.44" x 17.08" x 29.75"