# FLASHBLADE: SCALE-OUT STORAGE FOR MODERN DATA

# **SUMMARY**

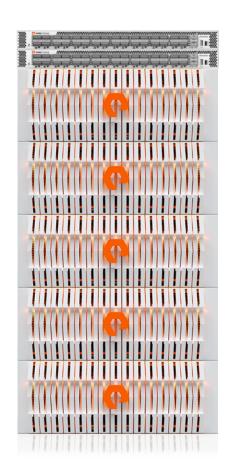
Data is the most valuable asset in an organization today. However, slow and complex legacy storage systems often hold data back from being put to use. FlashBlade™ is the industry's most advanced file and object storage platform, a data hub built to consolidate data silos like backup appliances and data lakes – to accelerate tomorrow's discoveries and insights.

#### RETHINK STORAGE IN THE ERA OF MODERN DATA

There are two types of storage systems. One is optimized to store data. The other is optimized to deliver it. One is engineered with legacy technologies, like spinning disk or retrofit software. The other is a modern system, architected from the ground up to be massively parallel, thus eliminating serial bottlenecks that hold data back. This modern storage is FlashBlade™ from Pure Storage.

# DATA HUB MODERNIZE EVERYTHING – FROM BACKUP APPLIANCES TO DATA LAKES

From artificial intelligence to analytics, data is at the center of today's innovation. Organizations are often hindered by legacy infrastructure, which prevents their data from moving at the speed of their business. FlashBlade is the industry's most advanced scale-out storage, architected to accelerate modern workloads and simplify infrastructure.



"Pure Storage FlashBlade is about 10 times faster out of the box, with no specific tuning or effort. It enabled us to boost our GPU from about 20% average utilization to close to 100% utilization."



— **JEREMY BARNES**, CHIEF ARCHITECT



# FLASHBLADE - POWERED BY THREE INDUSTRY FIRSTS



# **BLADE**

Compute and network integrated with DirectFlash™ technology – hotplug blades into the system to add capacity and performance.



# PURITY//FB

The heart of FlashBlade, architected on a massively distributed key-value pair database for limitless scale and performance with simplicity.



# **ELASTIC FABRIC**

FlashBlade is powered by an innovative converged fabric that delivers up to 1.5Tb/s aggregate bandwidth with 75 blades.



Accelerate AI data pipeline while keeping GPUs fully utilized



Consolidate data warehouses and data lakes for simplicity and real-time performance



Restore data rapidly to meet SLAs for disaster recovery



Meet ever-growing demands of modern DevOps environments



Shorten design cycles in EDA by eliminating data bottlenecks



Unleash data-intensive simulations from genomics and finance workloads

# REPLACE RACKS OF LEGACY TECHNOLOGY WITH FLASHBLADE

FlashBlade delivers unprecedented performance in a small form factor. It is tuned to deliver multi-dimensional performance for any data size, structure, or access, typically delivering 10x or greater savings in power, space, and cooling costs over traditional infrastructure.

"FlashBlade is just 4U, but provides the same performance as 50 racks of our legacy storage sitting in the same data center. It's extraordinary."

- JIM DOLAN, MANAGER, HPC WORLDWIDE SUPPORT







# **EVERYTHING YOU EVER WANTED IN A DATA HUB**

Some storage alternatives claim to be performant, but are complex to deploy. Others promise large capacity, but deliver data slowly. FlashBlade is the first scale-out storage solution to intersect on all three dimensions of big, fast, and simple.

# **FAST**

- Elastic performance that grows with data, up to 85 GB/s
- Always-fast, from small to large files
- Massively parallel architecture from software to flash

# BIG

- · Petabytes of capacity
- Elastic concurrency, up to 10s of thousands of clients
- 10s of billions of objects and files

# **SIMPLE**

- Evergreen<sup>™</sup> don't rebuy
  TBs you already own
- "Tuned for Everything" design, no manual optimizations required
- Scale-out everything instantly by simply adding blades



#### **SPECIFICATIONS**

# **PERFORMANCE**

- Up to 17 GB/s bandwidth with 15 blades<sup>†</sup>
- Up to 85 GB/s bandwidth with 75 blades<sup>†</sup>
- Up to 7.5M NFS IOPS with 75 blades

# CONNECTIVITY

- 8x 40Gb/s or 32x 10Gb/s Ethernet ports / chassis
- 2x FlashBlade External Fabric Modules (XFM) to scale up to 75 blades

# **PHYSICAL**

- · 4U per chassis
- 1,800 watts per chassis (nominal at full configuration)

"Our quants want to test a model, get the results, and then test another one – all day long. So a **10-20X improvement** in performance is a game-changer when it comes to creating a time-to-market advantage for us."



— GARY COLLIER, CO-CTO

† Large block read IO with 3:1 compression

