



# Archives and Data Management Systems in the Big Data Era

## The Pure Storage Way

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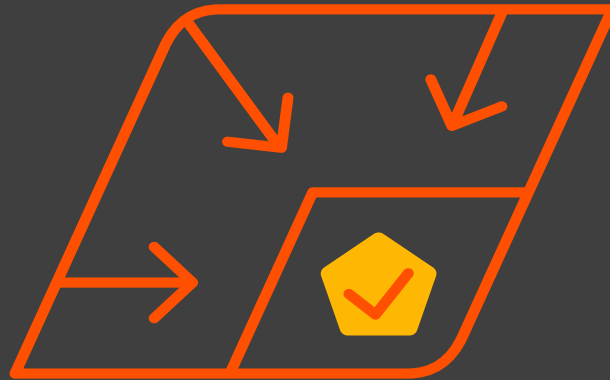


# Why Pure Storage

DirectFlash

Data Reduction

Evergreen





# 11X A Leader, 5X Furthest in Vision and Highest in Execution



## 4X A Leader

Pure Storage is a Leader for  
the Fourth Consecutive Year!

2024 Gartner® Magic Quadrant™  
for File and Object Storage Platforms

Gartner Magic Quadrant for File and Object Storage Platforms, by Chandra Mukhyala, Julie Palmer, Jeff Vogel, Published October 8, 2024. GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally, and is used herein with permission. All rights reserved.

Figure 1: Magic Quadrant for Primary Storage Platforms



Figure 1: Magic Quadrant for File and Object Storage Platforms



Gartner

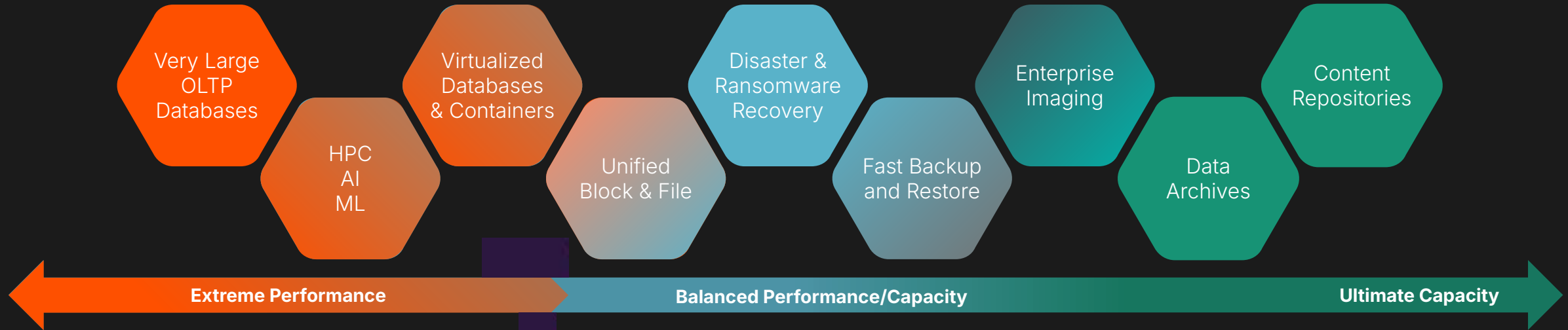
Gartner

\*This includes 5 years as A Leader in the Magic Quadrant for Solid State Arrays, and now 6 years as A Leader the Magic Quadrant for Primary Storage.

# Born Flash to target all the critical Use Cases

## Primary Applications Platform

## Always-on Data Repository



Block Files Objects

Purity **FA**

DirectFlash<sup>®</sup>

**FA**

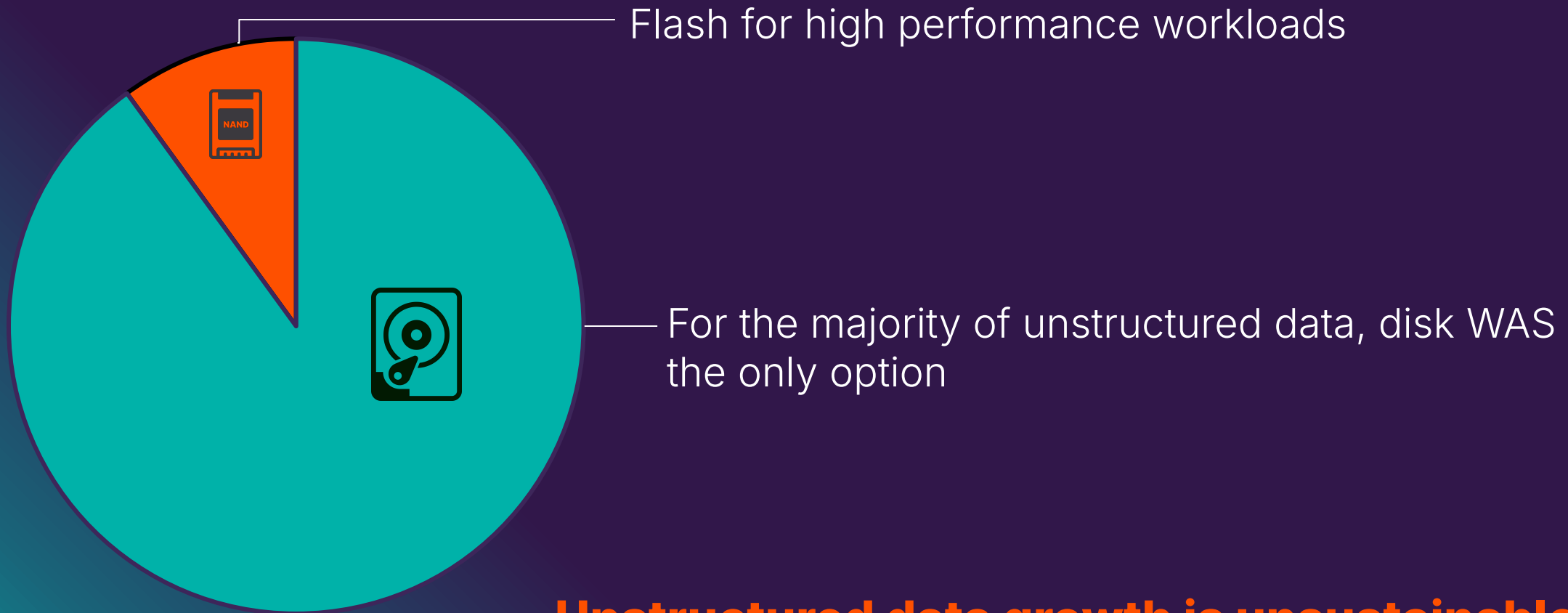
**FB**



AIOps: Pure1 - GUI/CLI/API -



# 90% of unstructured data lives on disk



**Unstructured data growth is unsustainable, using current disk-based storage solutions**

# Where disks/tapes underdeliver

Disk is no longer improving at the rate to support capacity-optimized unstructured workloads

## Too much space

Imagine needing 10x the space of your current disk-based storage.



## Too much energy

10x the energy-usage as costs continue to climb.



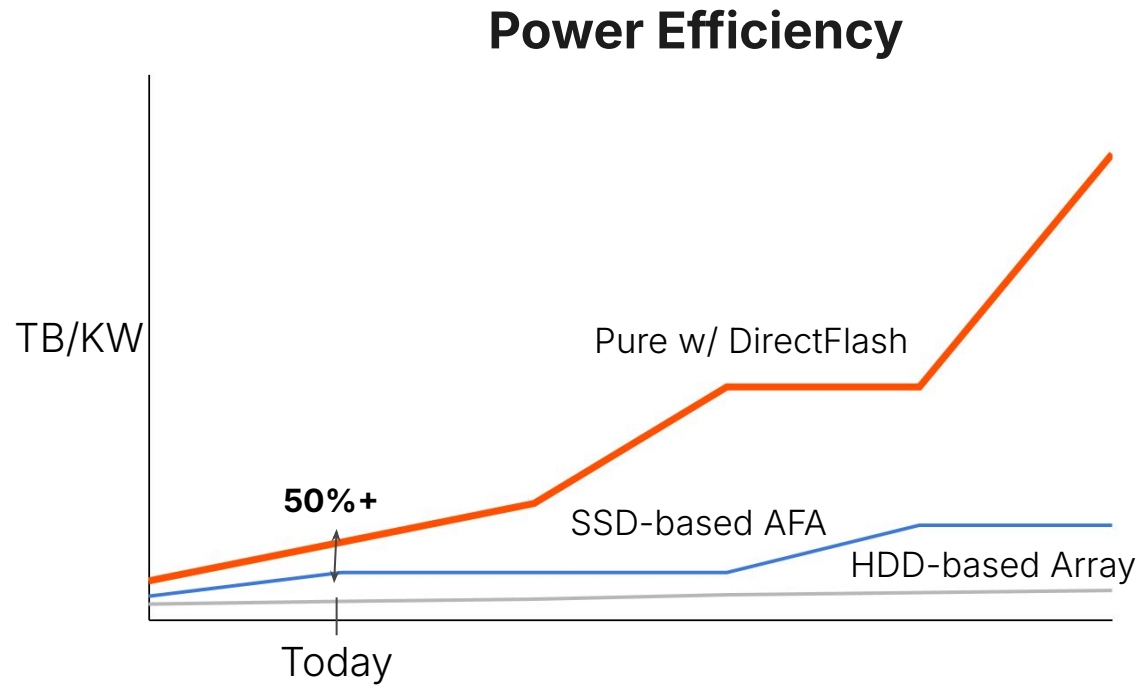
## Too many resources

More racks, more complexity, more e-waste, more FTEs.



# Direct Flash Drives Density

DFM(e) - Density drives efficiency

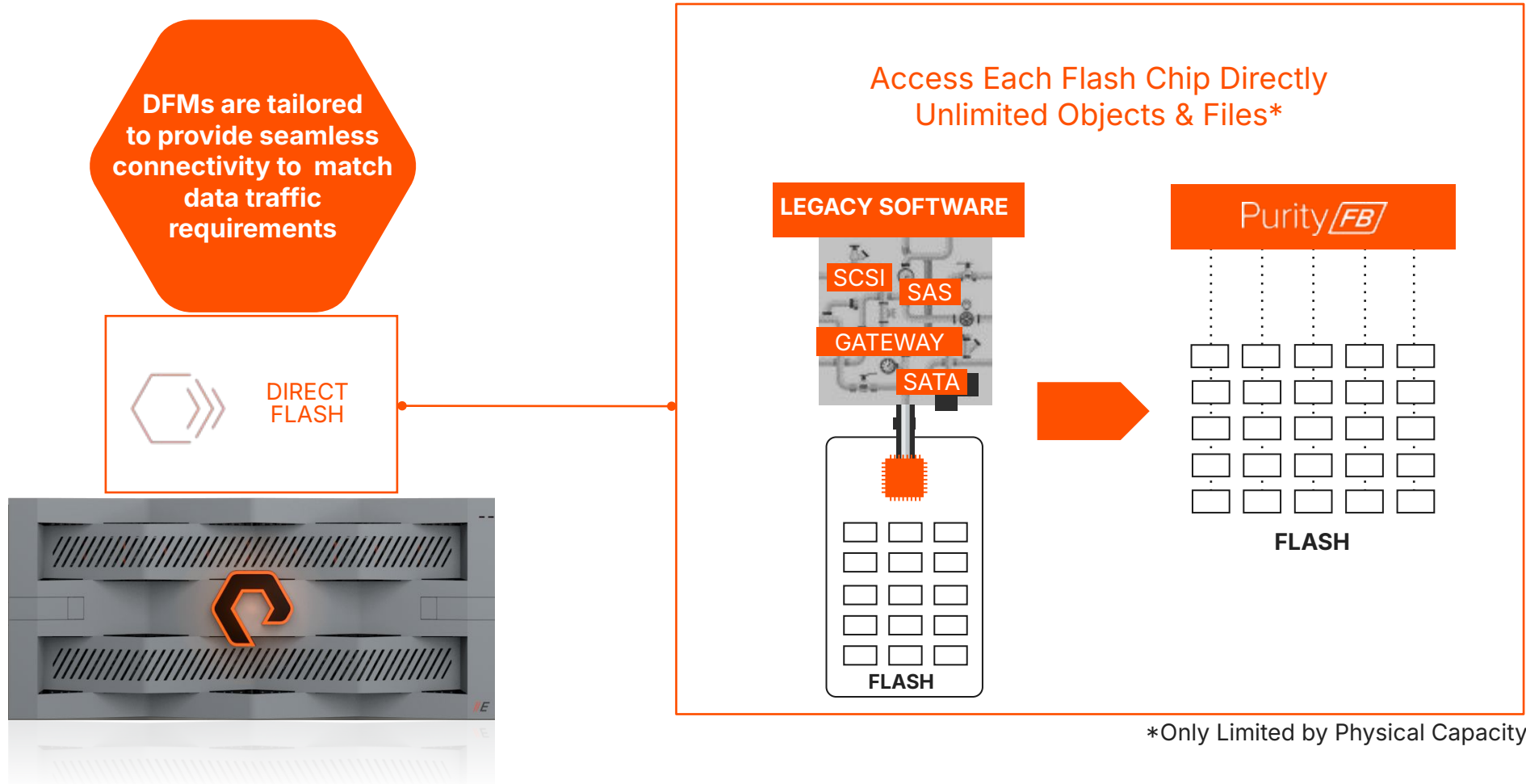


Direct Flash gives us a path to the **reliability, efficiency, and density.**



# Direct Flash with FlashBlade//E

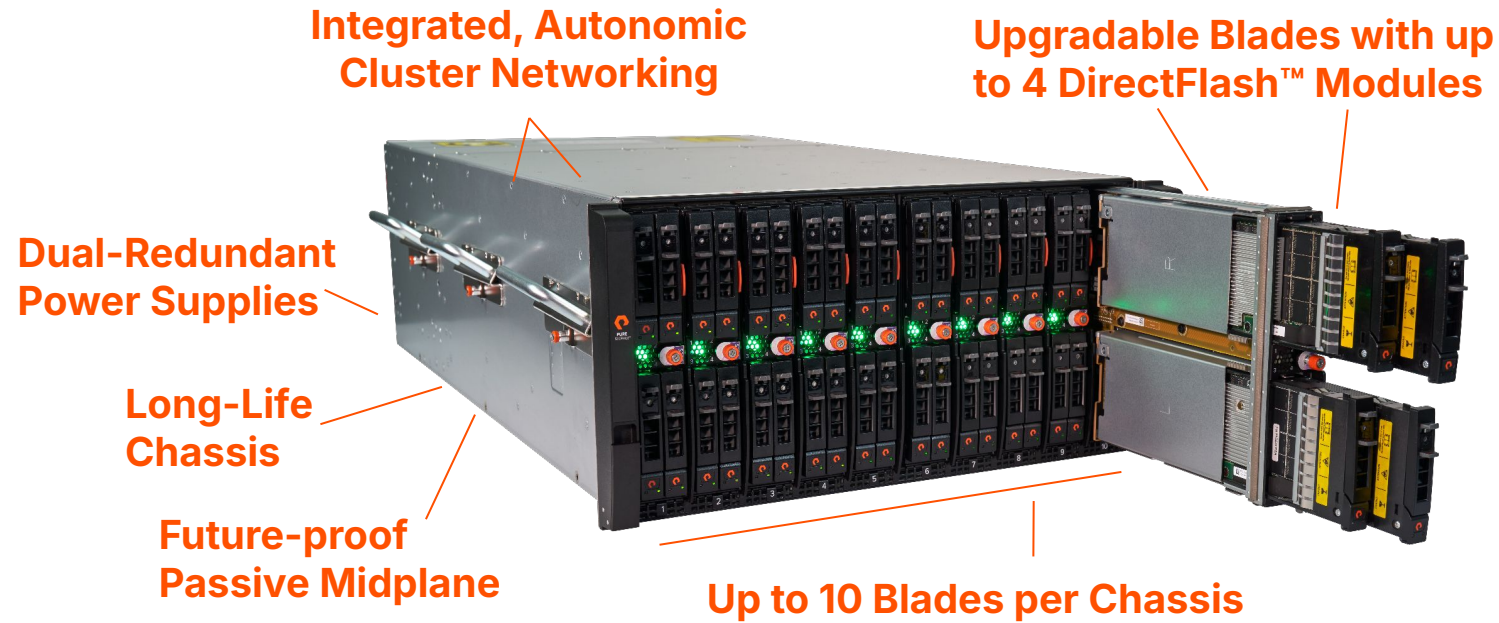
Legacy flash connectivity vs DFM(e)





# Fully Redundant, Modular Hardware Platform

Designed for the next ten years of hardware innovation



A flexible hardware architecture that can seamlessly evolve as your workload requirements grow and change over time.

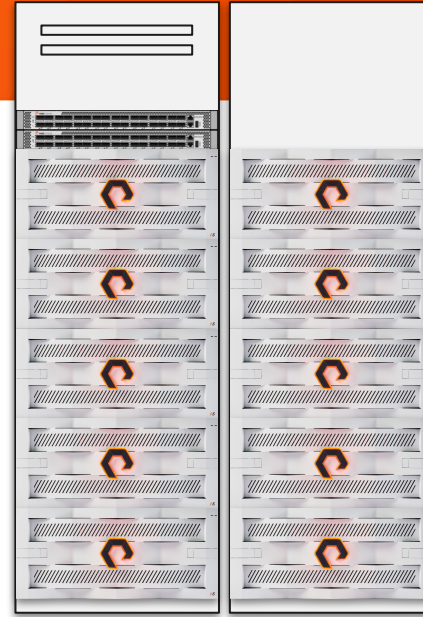
# Scale from tens of Terabytes to tens of Petabytes



## Minimum Configuration

### **FB//S100**

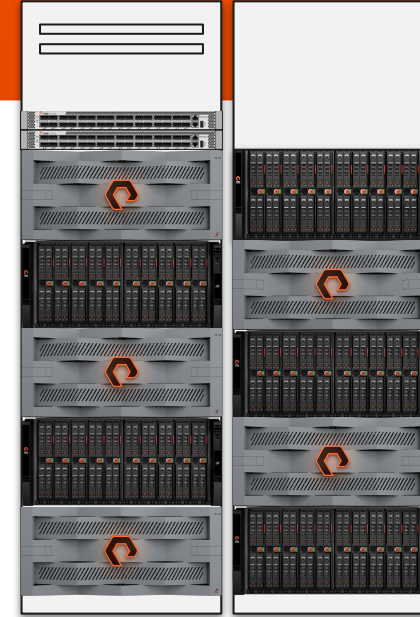
- 1 Chassis
- Raw: 126TB
- Usable: 68TB
- Effective @ 2.2:1 DRR : 136
- Rack Units: 5RU
- **Low entry-point**
- **Fully featured**
- **Upgradeable in place**



## Max Performance Config.

### **FB//S500**

- 10 Chassis
- Raw: 30,000TB
- Usable: 25,000TB
- Effective @ 2:1 DRR: 50,000TB
- Rack Units: 52
- **340GB/s Read & 110GB/s Write**
- **For latency sensitive and high-throughput workloads**



## Max Capacity Config.

### **FB//E**

- 10 Chassis
- Raw: 60,000TB
- Usable: 50,000TB
- Effective @ 2.2:1 DRR: 110,000TB
- Rack Units: 52
- **48GB/s Read & 28GB/s Write**
- **Low Time to First Byte (TTFB)**
- **Up to 2.5TB/Watt**

# More Efficient Technology

## Pricing competitive to HDD

DirectFlash DFMe has enabled all-flash system pricing to match that of HDD arrays

## Lower TCO

Space: >14x denser and improving

Energy: >6x higher TB/W and improving

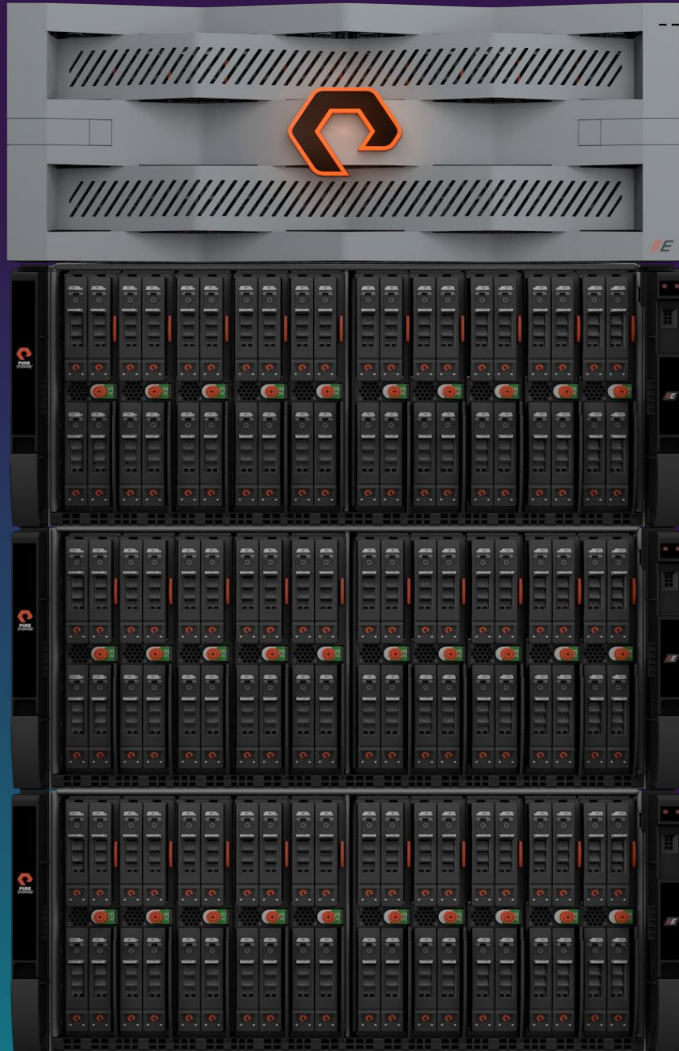
Reliability: 7x lower failure rate, 2x longer life

Industry's  
Largest Capacity

**150TB**  
QLC DFM

# Meet an All Flash Storage **FlashBlade//E**

About 0.5KW/PB Power Consumption (**will be even denser with 300TB NVMe Modules**)



**1 FTE to Manage it**

**Never Migrate Data Again**

**No More Service Disruptions**

**Up to 60PB in a single cluster**

**70 Quadrillions of Files/Objects - Open protocols**

**It works great with every File/Object Size (1KB and above)**

**No software licenses**

**Encryption is embedded (no need for Key Management)**

**Embedded Immutable Copies - Object WORM**

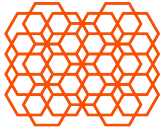
**Standard Protocols - SMB/NFS/S3 API**

**SW/HW Updates are not disruptive and transparent to Data Access**



# INAIL sceglie la tecnologia all-flash Pure Storage

<https://www.purestorage.com/it/company/newsroom/press-releases/inail-chooses-all-flash-tech-and-data-protection-with-pure-it.html>



## Maggiore densità storage e resilienza

**Petabyte** di dati non strutturati in **poche unità rack**

Livelli di throughput estremamente elevati



## Minore manutenzione, maggiore continuità operativa

Esigenze di **manutenzione ridotte** con l'all-flash rispetto ai dischi tradizionali

Uptime pari praticamente al 100%



## Minori consumi per alimentazione e raffreddamento

Efficienza intrinseca della tecnologia flash

**Consumi energetici** di alimentazione e raffreddamento del data center significativamente ridotti

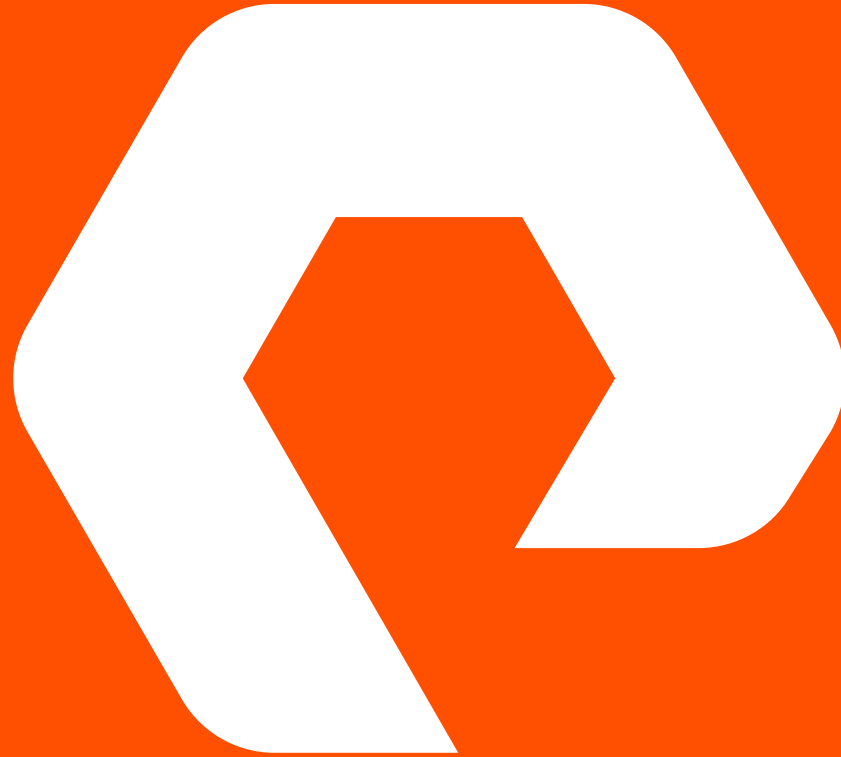


## Implementazione di una soluzione Rapid Restore

Rapid **Restore** con velocità di oltre **270TB/ora**

Disponibilità continuativa del servizio





Uncomplicate Data Storage, Forever