

Lustre User Group

LUG22 Sponsor Presentation

May 2022

Paul Wallace

Product Marketing Director, DDN





**DDN is the
World's Largest
Privately Held
Storage
Company**

Market Leader With
Global Presence

11,000
Customers





1,000
Employees

Largest
Contributor to
Lustre Development

Hosts
Lustre Community
Build/Test
Infrastructure

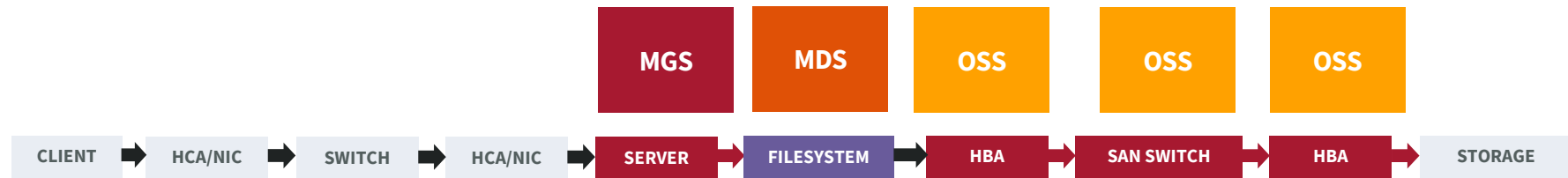


DDN All NVME/Hybrid Platforms for Lustre File Systems

SFA Systems	ES Systems	A ³ I Systems	EXAScale Class
			
SFA400NVX2E Community Lustre	ES400NVX2 EXAScaler Pre-Install	AI400NVX2 EXAScaler Pre-Install	ES18KX EXAScaler Block Storage
90GB/s 3M IOP/s	90GB/s 3M IOP/s	90GB/s 3M IOP/s	76GB/s 3M IOP/s
24 NVME Slots Up to 360 SAS Slots	24 NVME Slots Up to 360 SAS Slots	24 NVME Slots Up to 360 SAS Slots	48 NVMe Slots Up to 1872 SAS Slots
HDR/HDR100 IB (8) Or 100/200GbE (8)	HDR/HDR100 IB (8) Or 100/200GbE (8)	HDR/HDR100 IB (8) Or 100/200GbE (8)	EDR/HDR100 IB (16) Or 40/100GbE (16)



Focus on End-To-End System Performance

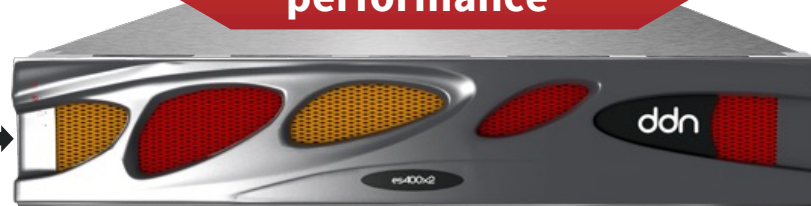


TRADITIONAL

IO PATHS

Consolidated, Simplified
Components with no
compromise on
performance

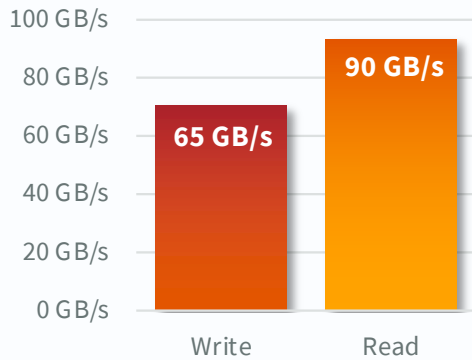
EMBEDDED



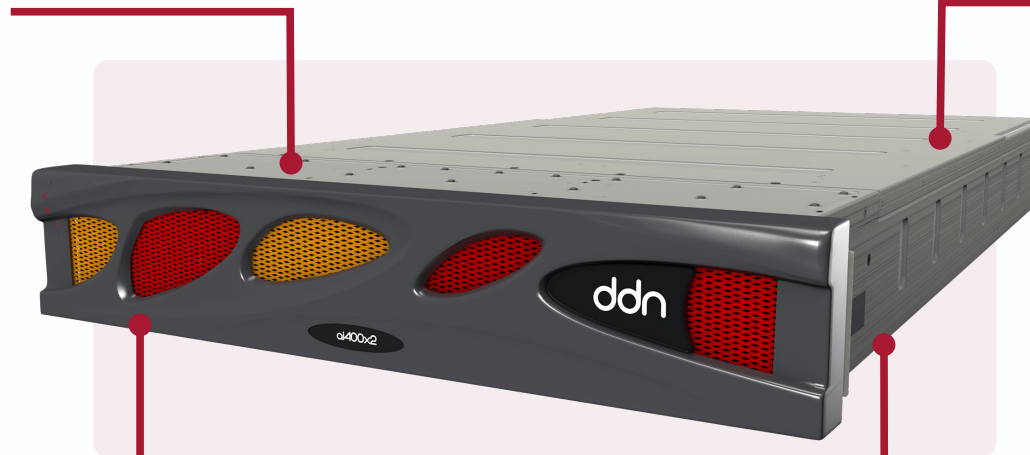


A NEW CLASS OF TIER 1 STORAGE FOR AI PERFORMANCE

Unchallenged Performance



No Limits to Scale



- AI Optimized
- 100% Parallel

Easy to Deploy,
Easy to Manage

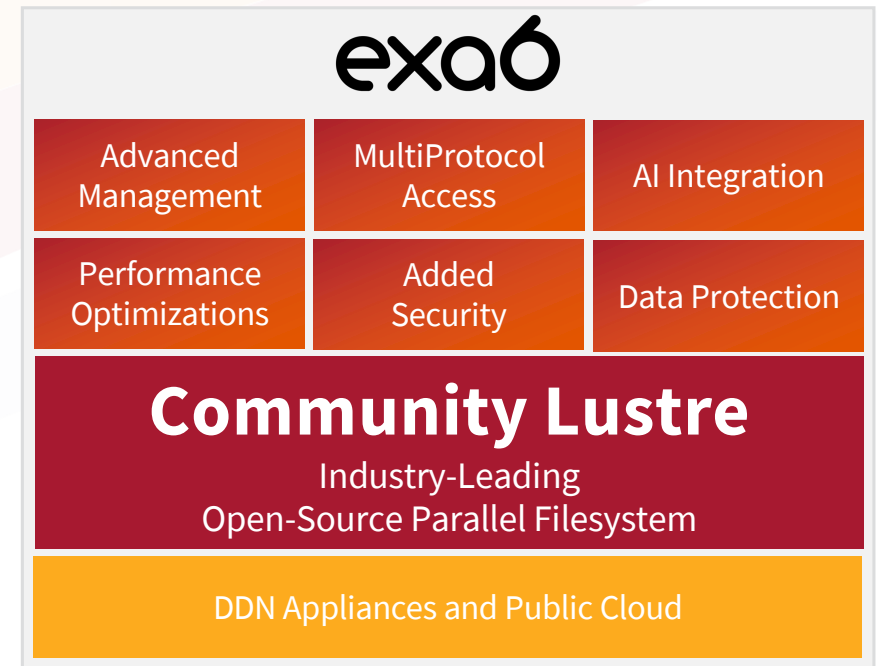
Complete Data
Protection and
Security Suite



EXAScaler 6 Builds on Community Lustre

EXAScaler Highlights:

- **Management** – Simplify orchestration & usability
- **Cloud** – Expertise for AWS, Google Cloud, Azure
- **DDN Insight** – Dashboards to analyze workloads
- **Hot Pools** – Automatic Tiering Between SSD & HDD





EXAScaler 6

Scalable, High Performance for AI, Analytics and HPC

- **Performance** – The Throughput and IOPs Leader
- **Ease of Use** –streamlined and automated management, online upgrades and expansion, richer CLI and GUI experiences for users and admins with enterprise-class management tools
- **Data Management** – Move, Stripe, Auto-Tier, Optimize
- **Security** – Client-side encryption and multi-tenancy
- **Rich Analytics** – Realtime Monitoring and Call Home





DDN EXA6 – EXAScaler Management Framework

Up to 10X Faster and More Repeatable Deployments, Upgrades and Expansions

Orchestration Manager

- Monitor cluster “state”
- run/track distributed command plans

User Interfaces

- API (GraphQL) as entry point
- Enhanced CLI and GUI for new functionality



Service Mesh

- Secure comms across infrastructure
- Servers, clients and utility nodes

Enhanced Security infrastructure

- Role Based Access Control
- Audit logging

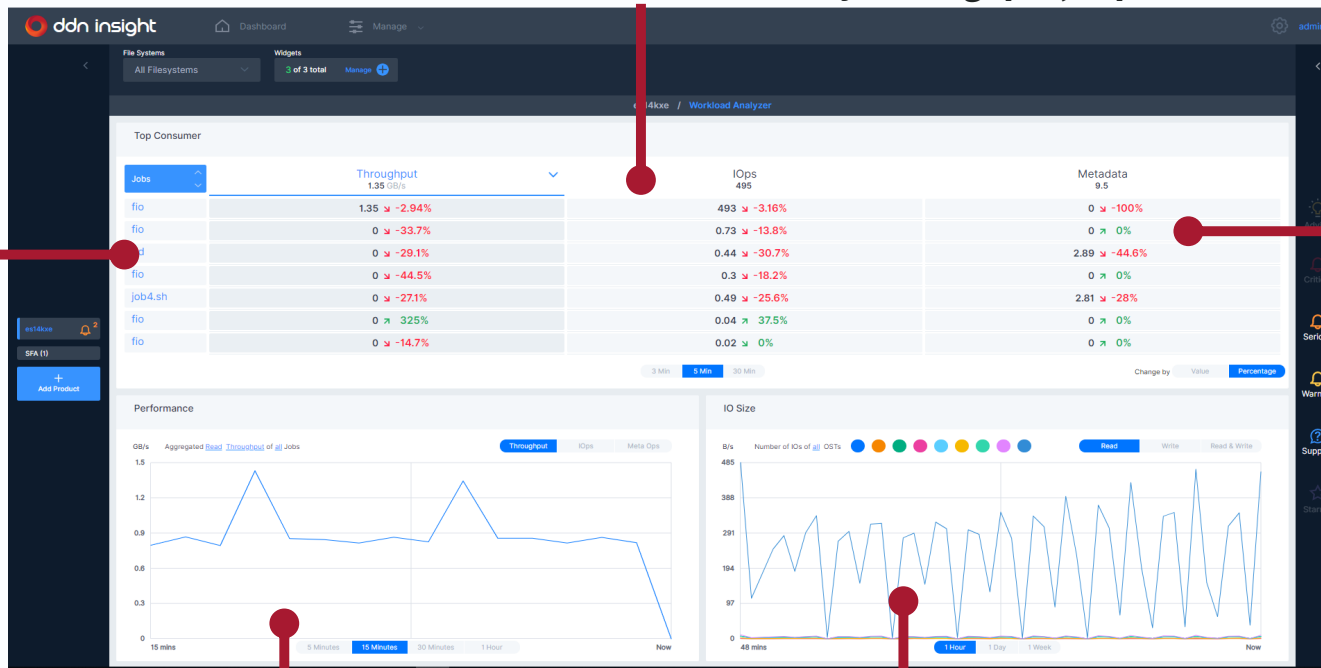
DDN EXA6 Framework Installs in Less Than 15 Minutes



DDN Insight A Complete Dashboard to Analyze Workloads

User can re-order by Throughput, IOps or Metadata activity

Running Jobs



Workload Analyzer

Aggregate Performance of Selected Jobs

IO Size (read, Write, or Both)



DDN EXA6 Hot Pools: Fully Automated Data Management

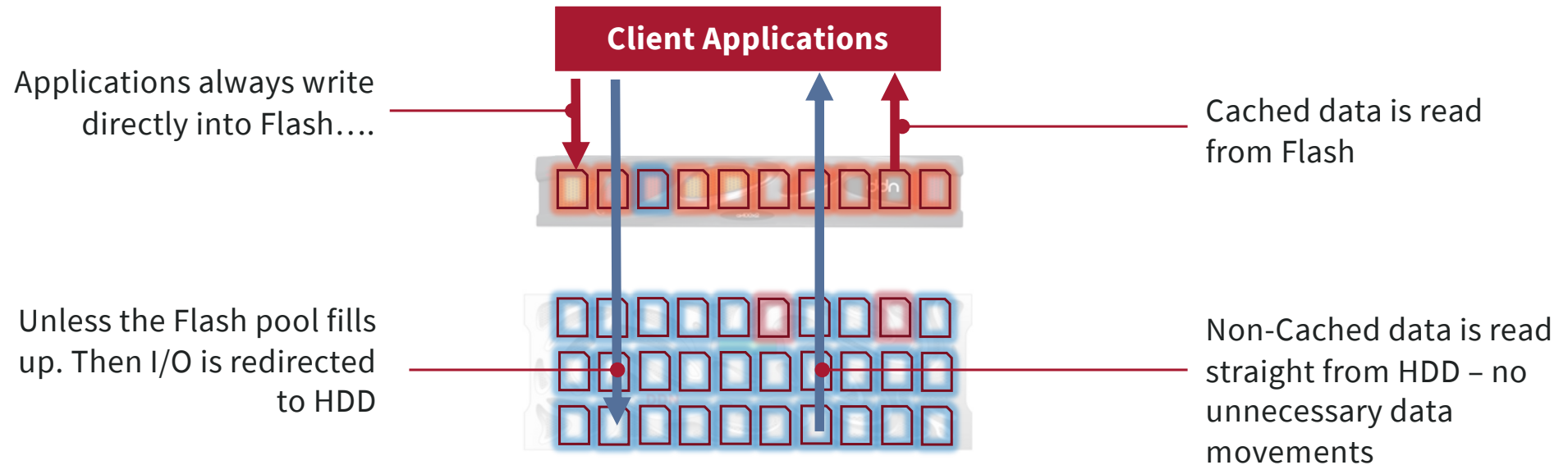
Performance **and** Cost Optimized With All the Benefits of HSM and None of the Issues

- **EXAScaler Hot Pools** optimizes for performance and keeps capacity costs low, by storing new/hot data in flash, and automatically migrating cold data to disk
- **No added complexity** for users with One Single Namespace and no penalty for hot pool cache miss
- **Automated Data Management** implemented by user-space utilities which call Lustre system commands



Data Placement Optimization without Compromise

Data in cache is accessed Very Fast, data out of cache is accessed Fast

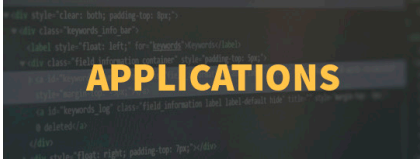

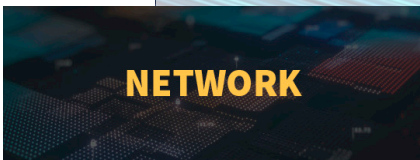





DDN Experts Delivers Solutions Not Just Storage

Add in the world's most expert team in delivering whole Storage and Data Management solutions



 APPLICATIONS	Optimize, Benchmark, Test
 COMPUTE	Optimize, Integrate
 NETWORK	Architect, Optimize, Integrate
 STORAGE	Optimize, Integrate



ddn