



## The Next Generation Parallel Filesystem Solution

Global Data Platform

Scales Effortlessly

Fastest

Densest

Flexible Architecture

Most Experience

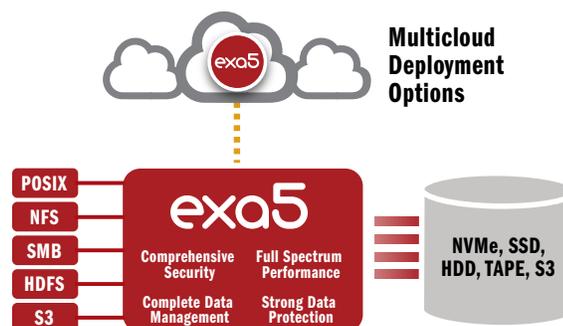
# EXA5 Product Family

Artificial Intelligence (AI), Analytics and High-Performance Computing (HPC) enable organizations everywhere to gain insights from their data with unprecedented velocity and accuracy. Data-intensive workflows put storage infrastructure squarely in the critical path—driving requirements for extreme, dependable performance that scales easily to meet evolving workload requirements on premise and in the cloud.

## EXA5: The World's Most Advanced Parallel Filesystem

Developed and optimized using the latest advances in filesystem software technology, EXA5 delivers extreme performance, scalability, capability, reliability and simplicity. Augmented with feature-rich enhancements, EXA5 delivers a true global data platform capable of enabling and accelerating a wide-range of data-intensive workflows, at any scale. Fully-integrated DDN EXAScaler appliances combine the world's fastest hyperconverged data storage platform with a truly parallel filesystem software in a package that's easy to deploy, managed and backed by the leaders in data at scale.

EXA5 is fully-optimized to deliver data with high-throughput, low-latency and massive concurrency using a shared parallel architecture that can scale flexibly for most technical and economic benefits. Building on over a decade of experience deploying parallel filesystem solutions in the most demanding environments around the world, DDN delivers unparalleled performance, capability and flexibility for users looking to manage and gain insights from massive amounts of data.



## Data Management: Automated, Optimized, and Secure

EXA5 introduces several new data management and integrity filesystem features developed by DDN and only available in its appliances and cloud offerings. Stratagem is a powerful data orchestration engine that gives users comprehensive data residency controls using policy-based placement. Hot Pools intelligently moves data between high-performance flash and large capacity disk and ensures efficient use of storage. A native T10DIF implementation ensures that data is handled with full integrity from application to disk. Several dozen other new features in EXA5 deliver unique value for users looking to deploy the most demanding workloads on premise, in the cloud.

EXA5 enables organizations everywhere to create, analyze and keep more data than ever before, and accelerates time-to-insight with unequalled speed, precision and simplicity.

## Delivering Features and Functionality You Can't Get Anywhere Else

**Embedded/Converged:** Realize the lowest TCO with simple and efficient EXAScaler appliances.

**Deployment Tools:** Simplify EXAScaler adoption with data migration and configuration tools.

**EXAScaler Stratagem:** Streamline data management and orchestration with this policy-based and API driven data integration tool.

**Snapshots:** Protect essential data with efficient, global snapshots.

**Encryption:** Ensure data security with encryption in-flight and at-rest.

**Data Integrity:** Transparently assure accuracy and consistency of data with end-to-end verification.

**Auditing:** Meet legal and regulatory requirements with a complete picture of who made changes, and when.

**Quotas:** Maintain control of the filesystem with use, project, and directory quotas.

**AI-Optimized:** Quickly spin up new AI and deep learning applications through full interoperability with common frameworks and GPU integration.

**Flexible Protocols:** Supply data ingest and access facilities with standard file and object protocols.

**Workload Analytics:** Gain deep understanding of filesystem and hardware utilization, and monitor performance at node and job-levels.

**Hot Pools:** Optimize flash utilization and long-term data retention with automated policy and API-based data movement.

**Container Support:** Get high performance parallel access for containerized applications.

**MultiCloud Ready:** Deploy one data management architecture on-premises and in commercial clouds with cloud native deployment.

**Migration and Synchronization:** Protect, move and share data, and facilitate MultiCloud workloads with integrated data movement tools.

**Multitenancy:** Maintain secure, isolated access to data for multiple users or organizations.

**Application Acceleration:** Deliver the highest throughput and IOPS performance with the lowest latency via the EXAScaler client.

**Deep GPU Integration:** Produce better application run times with the most efficient data path via support for NVIDIA GPUDirect technology.

## Technical Specifications



ES200NVX®



ES400NVX®



ES7990X®



ES18KX®

### Protocols

EXAScaler Parallel Clients, NFS/SMB, S3 Gateways, and CSI Driver

### Version

DDN EXA5, based on Lustre 2.12

### Performance

Up to 90GB/s per appliance (with ES18KX)

### Storage Configuration

Supports embedded metadata servers on DDN SFA Appliances, or external scale-out metadata server using Lustre DNE

### Host Connectivity

EDR/HDR InfiniBand and 40/100GbE (number of connections varies by appliance)

## About DDN

DataDirect Networks (DDN) is the world's leading big data storage supplier to data-intensive, global organizations. DDN has designed, developed, deployed, and optimized systems, software, and solutions that enable enterprises, service providers, research facilities, and government agencies to generate more value and to accelerate time to insight from their data and information, on premise and in the cloud.

Product Specifications Subject to Change

©DataDirect Networks, Inc. All Rights Reserved. DataDirect Networks, EXAScaler, ES200NVX, ES400NVX, ES7990X, and ES18KX are trademarks of DataDirect Networks. \*Other Names and Brands May Be Claimed as the Property of Others.

v4 (1/21)



Intel® Xeon® Processors

+1.800.837.2298 · sales@ddn.com · ddn.com/exascaler