

### ***The Right Solution for a New Era in Retailing***

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In addition to supporting its automated retail infrastructure, DDN helped a retail customer optimize their in-store IT framework system, solving several bottlenecks and delivering an exponential increase in training and inference yield from the underlying DL application.

**XXII**, a leading provider of real-time video analysis solutions, partners with DDN to deliver a seamless, automated retail experience. Using its proprietary computer vision algorithms, the XXII and DDN-backed solution allows customers to shop in stores without any friction and without having to wait in line.

A fully autonomous check-out solutions supplier partners with DDN to seamlessly deliver continuous data acquisition for multiple cameras, providing real-time analysis of data, offering low-latency responses, and effortless management of complex deep-learning training algorithms.

## **Automated Retail**

The consumer shopping experience is undergoing a radical transformation as technologies like automation and integration become more cost-effective and accessible. Soon, standing in a checkout line will be something found in history books. The shift to frictionless retail incorporates autonomous checkout and real-time analytics that promises to improve the overall shopping experience, from seamless, in-store interactions to enabling real-time customer service.

The next-generation retail technology, using high-definition, in-store cameras, advanced computer vision, and sensors and devices will generate valuable data for retailers to gain tangible insights on their consumers. Artificial Intelligence (AI), machine learning (ML) and deep learning (DL) applications have the potential to meaningfully impact the retail industry.

All this requires an IT infrastructure that can support the ingest, processing and delivery of large datasets and ensure the saturation of the GPUs used by retail DL applications. DDN designs its systems with physical space and power limitations, remote management capability, and autonomy of the system in mind.

### **Optimized for AI Application Demands**

DDN solutions accelerate machine learning, simplify massive data set analysis, and support retail analytics for real-time recognition of consumer shopping baskets. DDN delivers cloud and on-premise solutions that ingest live feeds from cameras in real-time and provides built-in scalability to handle the collection of additional daily datasets over time.

### **Speed and Efficiency**

DDN is one of the leaders in AI-oriented calculators for inference purposes, and provide high storage capacities and high-volume video management. DDN combines an all-flash layer, with integrated controls for automatic staging of the day's freshly acquired data set, with a hard disk layer for longer-term economical storage. GPUs get the fastest and most efficient access possible to the daily capture data to achieve the highest productivity.

### **Proven Expertise and Technologies**

What sets DDN apart is our comprehensive knowledge and expertise, not just in storage but also in the entire architecture. With our deep experience and proven technologies in AI, HPC, and large-scale computing, DDN delivers analytics and machine learning results with efficiency and acceleration never achieved before. Our engineering and support teams are committed to solving the most complex challenges and ready to push the boundaries of the retail industry.



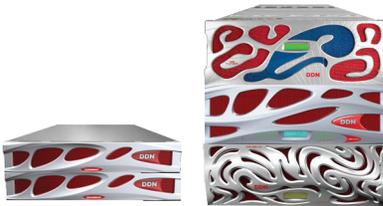
### A<sup>3</sup>I

DDN A<sup>3</sup>I storage solutions are fully-optimized to accelerate machine learning and artificial intelligence (AI) applications, streamlining deep learning (DL) workflows for greater productivity. Working with industry leaders like NVIDIA and Hewlett Packard Enterprise (HPE), A<sup>3</sup>I artificial intelligence storage solutions harness the knowledge from customer-proven deployments to make AI-powered innovation easy. A<sup>3</sup>I is a turnkey, AI data storage infrastructure for rapid deployment, featuring faster performance, effortless scale, and simplified operations through deeper integration—all backed by the data-at-scale experts.



### IME

IME delivers up to 1000X application and file system speed-up with the world's most advanced application-aware I/O acceleration software, removing randomness out of workflows and reducing uncertainty and erratic performance in the cluster. This break-through storage application eliminates POSIX contentions, enabling you to convert problem I/O-bound applications into easily resolvable compute-bound challenges. Developed to drive faster time to results, IME delivers game-changing latency reduction, more bandwidth and unmatched IOPS.



### Parallel Filesystem Solutions

DDN's file system solutions delivers best-in-class analytics, parallel file system and NAS for the most data-intensive and performance-demanding environments. Next-generation Appliances tightly integrate award-winning DDN HPC storage technology with the power of parallel file systems to provide flexible choices for data protection and availability, offering ease of access through traditional NFS or CIFS as well as the option for high performance client access.



### Block Storage

To perform cutting-edge workflows and analytics, our highly versatile SFA Platforms deliver award-winning technology with the necessary breakthrough performance and capacity with NVMe, SSD and intelligent disk tiering. Maximizing their innovative PCIe fabric plus the option to leverage the power of embedded processors, applications and file systems within the storage array to significantly reduce complexity, latency and data center footprint. From the performance focused SFA 200NVX and 400NVX all flash NVMe systems, to the versatile hybrid SFA7990X and the ultimate in performance and capacity with the SFA18KX, DDN has the form factor to fit the uniqueness of your use case.

## About DDN<sup>®</sup>

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.

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