



IntelliFlash™

N-Series Storage Systems

► **NVMe-FLASH STORAGE OFFERS EXCEPTIONAL PERFORMANCE THAT CAN FUNDAMENTALLY TRANSFORM HOW YOU CONDUCT BUSINESS.**

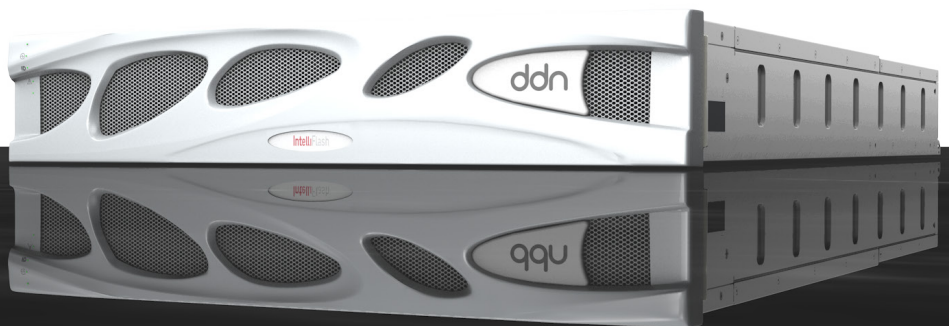
But most flash-based solutions force you to compromise on performance, cost or enterprise capabilities.

The IntelliFlash N-Series is a fifth-generation intelligent storage infrastructure solution that doesn't require you to compromise. On top of excellent performance, the N-Series delivers an exceptional user experience and outstanding cost-efficiency through automation, analytic insights, and a variety of time-saving management features to drive and optimize your most valuable workloads.

The N6000 Series is the latest addition to NVMe-based IntelliFlash offerings and leverages the industry's most mature NVMe platform. It delivers unmatched innovation in flash management, data persistence, and data management, enabling new levels of consolidation, simplicity, and economics.

You can choose between two N6000 Series models based on your workload requirements - from midrange to high-end performance. Enterprises that need all-NVMe performance to accelerate their most demanding workloads can now access data faster than ever and with the lowest latencies to improve business insights and decision-making. Your enterprise workloads deserve uncompromised performance, especially when they are key to your business success.

Customers have deployed the N-Series systems to accelerate to accelerate file services, AI workloads, high performance databases and virtualized business applications. Exceptional performance at low latency, flexibility at scale, and comprehensive data services make IntelliFlash N-Series the choice for any performance-sensitive workload.



► **FEATURES**

- Exceptional Performance - IntelliFlash N-Series confidently handles performance-sensitive workloads
- Unified Storage - Concurrent native block (FC, iSCSI) and file (NFSv3.x/v4.x, SMB1/2/3) access
- Cloud-Based Intelligent Analytics - Visibility across all IntelliFlash systems, with insights that keep infrastructure operating at peak efficiency and availability
- Comprehensive Data Services - Inline deduplication and compression, snapshots, read/write clones, and thin provisioning
- Synchronous Replication - Provides continuous business continuity and seamless data mobility between any IntelliFlash all-flash or hybrid systems located in different data centers
- Live Dataset Migration - Seamless live migration of iSCSI/FC LUNs across IntelliFlash systems
- IntelliFlash S3 Cloud Connector - Hybrid cloud capabilities, enabling connectivity to the public cloud or any S3-compatible object storage
- VMware® Support - vCenter® plug-in and integration with VMware SRM and VAAI NAS
- Microsoft Hyper-V Support - PowerShell Toolkit plus SMB3 Enhancements for Hyper-V

► **BENEFITS**

- Maximizes Returns on Investment - Provide consistent performance, continuous availability and higher productivity for critical workloads
- Full Featured File Services - Enterprise grade NAS functionality for both virtualized and non-virtualized environments
- Simplified Management and Analytics - Common GUI management for all IntelliFlash systems
- Affordable Disaster Recovery - Replicate between any IntelliFlash systems
- Mixed Workload Consolidation - Support bare metal applications along with certified configurations for Oracle, Microsoft, VMware and many other environments
- Hybrid Cloud Flexibility - Back up local snapshots to the cloud or quickly migrate volumes for bring-up on any S3-compliant object storage
- Capacity as Needed - Without compromising on performance
- Reduced OPEX - With a platform that is energy efficient, offers inline data reduction, and is easy to maintain, so you can save on power, cooling, and labor

▶ INTELLIFLASH N-SERIES - NVMe-FLASH STORAGE SYSTEMS MODEL

| MODELS | N6100 Mid-Range NVMe Solution | N6200 High-Performance NVMe Solution |
|--------------------------------|--|--------------------------------------|
| STORAGE CAPACITY | | |
| NVMe FLASH CAPACITY (TB) † | 46 to 368 | |
| NVMe EFFECTIVE CAPACITY (TB) ‡ | Up to 1840 | |
| STORAGE CONTROLLERS | Dual Controller (active/active), fully redundant architecture | |
| ETHERNET DATA I/O PORTS | Up to 8X 40/100GbE, or 8X 10/25GbE | |
| FIBRE CHANNEL DATA I/O PORTS | Up to 8X 16 Gbps Fibre Channel | |
| NETWORK ADMIN PORTS | 4X 10GbE, 2X 1GbE (IPMI) | |
| PHYSICAL SPECIFICATONS | | |
| CONTROLLER FORM FACTOR | 2RU with 24 NVMe SSD Slots | |
| PHYSICAL DIMENSIONS (HXWXD) | 3.4" x 17.6" x 33.5" (87.6mm x 446.4 mm x 850mm) | |
| WEIGHT (ESTIMATED) | 80lbs (36.2kg) (chassis only) 91lbs (41.2kg) (fully populated with 24x SSDs) | |
| TYPICAL POWER USAGE (WATT) | 800W (2730BTU/HR) | 900W (3070BTU/HR) |
| ENVIRONMENTAL SPECIFICATIONS | Operating temperature: 10°C to 35°C (50°F ~ 95°F) Non-operating temperature: -40°C to 70°C (-40°F to 158°F) Operating relative humidity: 8% to 90% (non-condensing) Non-operating relative humidity: 5% to 95% (non-condensing) | |
| SOFTWARE SERVICES | | |
| BLOCK AND FILE PROTOCOLS | SAN Protocols (iSCSI, Fibre Channel), NAS Protocols (NFS, SMB) Operating relative humidity: 20% to 90% (non-condensing) | |
| CAPABILITIES | IntelliFlash Operating Environment: Real-time deduplication and compression, snapshots and clones, space efficient thin provisioning, synchronous replication, full featured file services, S3 Cloud Connector, Live Dataset Migration, data-at-rest and data-in-flight encryption | |
| MANAGEMENT | IntelliFlash web UI, configuration wizard, Analytics for IntelliFlash, VMware plug-in for vCenter and support for vCenter Linked Mode, RBAC, SRA and VAAI NAS; Microsoft SCVMM/SMI-S, IP-KVM, SNMP, PowerShell Toolkit | |
| HARDWARE AVAILABILITY | Redundant storage controllers, fans, power supplies, and network ports; removable NVMe SSDs, SAS expansion | |
| WARRANTY | | |
| BASIC | 24x7 support via email and phone, next business day hardware replacement for defective parts and software updates for the first 90 days | |

OPTIONAL

Standard and Premier Service: ddn.com/support/support-plans

† Values indicated are RAW capacity. One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to storage capacity.

Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drives, the operating system and other factors.

‡ Effective capacity includes the benefit of data reduction with inline deduplication and compression.

Data Reduction is calculated based on a 5:1 efficiency ratio. This efficiency ratio can vary based on workload type.

Where a range is present, the values are Min - Max

For more information on how DDN IntelliFlash systems can turbo-charge your business success with simplified Intelligent Infrastructure, visit www.ddn.com/intelliflash.

Top Five Reasons

To Deploy IntelliFlash™ N-Series

Non-Volatile Memory Express (NVMe™) is now a well-established technology that empowers enterprise applications with native flash performance by eliminating legacy interface bottlenecks.

The IntelliFlash N-Series is a battle-tested solution that delivers consistent, scalable performance to successfully drive your business, whether it's a few apps that need a performance boost or business-critical workloads that demand the fastest and most reliable NVMe technology available. The N6000, an enhanced leading-edge IntelliFlash product line, is based on the industry's most mature NVMe platform from DDN, which manages data for the most demanding high-performance workloads on the planet. Any workload, running in virtualized and non-virtualized environments, with structured or unstructured data, can now benefit from accelerated transactions and simplified operations on a fault-tolerant IntelliFlash architecture.

Enterprises can also fully utilize the strength of NVMe for both high-performance and hybrid workloads – balancing speed and cost-efficient capacity. High performance with ultra-low latency at scale, combined with AI-driven analytics and autonomous workload optimization make IntelliFlash N-Series the storage platform of choice to power your most valuable workloads.

01

AUTO-PERFORMANCE OPTIMIZATION

Consistent Throughput - No IO Contention

IntelliFlash N-Series is the product of choice to drive your performance-sensitive workloads without compromise. You get a proven enterprise-class NVMe storage architecture that's ideal for real-time analytics, high-transaction processing workloads, and business applications.

You can reduce latency, increase throughput and turbo-charge your performance with a fully optimized IntelliFlash software stack and innovative NVMe flash management. Count on automatic workload isolation to eliminate IO contention and patented intelligent caching to give your apps ultra-fast data access – even at multi-petabyte scale.

02

NON-DISRUPTIVE SERVICE DELIVERY

Fully Redundant Battle-Tested Architecture

Today's enterprise applications are expected to be accessible at any time, with little-to-no tolerance for slowdowns or outages. IntelliFlash N-Series systems let your IT and business leaders sleep at night, knowing they've got the industrial strength reliability needed for always-on workloads.

These systems are built on a fault-tolerant, self-healing architecture that runs the most demanding workloads in the world and is designed to eliminate any single point of failure. In addition, advanced analytics and deep application-level visibility help IT immediately pinpoint bottlenecks, rapidly resolve issues, and proactively avoid failures.

03

DYNAMIC DATA MOBILITY

Hybrid Cloud Management and Protection

Forward looking organizations need flexible data management solutions with different deployment models to optimize resource efficiency, scale and control. To meet this need, the IntelliFlash N-Series offers simplified hybrid cloud management and data mobility between on-premises storage and public clouds.

Our integrated S3 APIs let you replicate local snapshots to the cloud or to any S3-compliant object storage for data protection and fast recovery. An additional, integrated Live LUN Migration (LLM) enables you to transparently move data sets between two IntelliFlash systems for resource optimization. Furthermore, to accelerate data mobility between different storage platforms, our turnkey DataFlow solution lets you plan, execute and validate data migration operations at any scale.

04

OPERATIONAL SIMPLICITY

Unified Storage Reduces Management Effort

As enterprise data continues to grow exponentially, organizations are under constant pressure to optimize their storage investments. IntelliFlash N-Series systems optimize storage resources and simplify management by supporting SAN (iSCSI, FC) and NAS (NFS, SMB3) protocols, concurrently, in both physical and virtualized environments.

These unified storage systems are among the most versatile and easiest to manage in the industry, enabling administration by non-storage experts and including all features under a single license. IntelliFlash systems are also application-, VM- and container-aware, providing integrated management with VMware, Microsoft, Citrix, Oracle and Kubernetes technologies to simplify provisioning, backups, disaster recovery, cloning and more.

05

AI-DRIVEN ANALYTICS AND EFFICIENCY

Precise Intelligent Resource Planning

Your most demanding workloads deserve uncompromised performance – especially when they are key to your business success. IntelliFlash N-Series combines the power of NVMe, software-optimized flash management, and robust enterprise data services and analytics. This delivers exceptional performance at low latency with scalable capacity to accelerate your most demanding workloads.

Instead of managing multiple silos from different storage vendors, you can deploy IntelliFlash N-Series and select NVMe or other flash expansion shelves as dictated by your application performance, capacity, and economic requirements. Plus, you can manage all your IntelliFlash systems with the same administrative workflows and easy-to-use GUI.

For more information on how DDN IntelliFlash systems can turbo-charge your business success with simplified Intelligent Infrastructure, visit www.ddn.com/intelliflash.