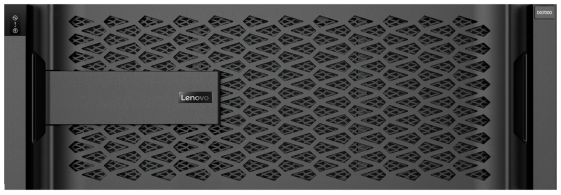
ThinkSystem DG Series

Accelerate your all-flash QLC, cloud-connected data center



The Challenge

In pursuit of greater cost-efficiency and energy conservation, organizations are committed to enhancing their IT operations while simultaneously fulfilling performance and capacity demands. With the increasing maturity and availability of quad-level cell (QLC) flash technology, organizations are discovering its performance is ideal for workloads like AI/ML and analytics, data lakes, ERP, and shared object files.

Furthermore, its affordable price compared to triple-level cell (TLC) media offers a significant advantage. Customers seeking to update their IT infrastructure from HDD to Flash, no longer desire to pay a premium for sub-millisecond performance when it comes to non-mission-critical workloads.

Moreover, organizations are progressively seeking seamless cloud connectivity options, enabling them to establish a flexible hybrid cloud infrastructure that effectively caters to their evolving IT requirements.

The implementation of Lenovo ThinkSystem DG Series All-Flash systems enables customers to realize these objectives by effectively diminishing data center expenses through an eco-friendly and highly efficient alternative to hybrid flash and HDD systems.

The Solution

Based on cutting-edge NVMe flash technology, Lenovo ThinkSystem DG Series systems offer an exceptional solution for companies of all sizes requiring significant storage capacity within a minimal physical footprint.

An innovative hybrid cloud IT infrastructure empowers customers to streamline and unify data management seamlessly across both cloud and on-premises environments, meeting business requirements and attaining a competitive advantage. Through the implementation of Lenovo ThinkSystem DG Series systems, customers can optimize performance while simultaneously minimizing overall storage expenses.

This is achieved by intelligently tiering cold data to the cloud, allowing organizations to allocate flash storage for frequently accessed data while conserving energy. Along with cloud integration capabilities, customers can effortlessly connect to multiple cloud platforms, enabling access to an expanded range of data services, including backup, caching, and disaster recovery.

Lenovo

Simplified data management and monitoring

Harnessing the unrivaled capabilities of DG Series system unified data management software, Lenovo ThinkSystem DG Series systems offer unparalleled flexibility, allowing customers the ability to move workloads across SAN, NAS, and object storage, utilizing their data on-premises or in the cloud.

Additionally, ThinkSystem Intelligent Monitoring is an intuitive digital advisor that monitors capacity usage and helps to uncover potential risk factors before they affect your business. Identify trends to proactively optimize protection, efficiency, and upgrades through a single web-accessible platform. Intelligent capacity and performance monitoring will allow you to stay ahead of the curve and plan accordingly to meet your business's growth needs.

Integrated data protection

Lenovo ThinkSystem DG Series software provides a comprehensive range of data protection features to fortify the security of your sensitive data across on-premises, cloud, and in transit.

The cutting-edge anti-ransomware protection ensures comprehensive safeguarding of your critical data, both proactively and during post-attack recovery, mitigating the risk of potentially devastating financial ramifications.

With Lenovo ThinkSystem DG Series system software, businesses can achieve uninterrupted data availability with zero data loss and downtime. Your entire system is safeguarded with synchronous replication, ensuring comprehensive protection.

Furthermore, the software offers a flexible and cost-effective solution for business continuity by enabling highly granular replication of specifically selected critical data, enhancing your data resilience strategies.

Lenovo ThinkSystem DG Series

Discover a capacity flash solution that revolutionizes sustainability, scalability, and security. Embrace the benefits of flash performance at a cost comparable to traditional disk solutions while occupying only a fraction of the physical space.

Specifications

	DG7000	DG5000
NAS Scale-out Maximum	12 High Availability pairs	
Maximum SSDs	1,152	576
Maximum Raw Capacity	17.6PB	8.8PB
Effective Maximum Memory Capacity	3072GB	1536GB
SAN Scale-out Maximum	6 High Availability pairs	
Maximum SSDs	576	288
Maximum Raw Capacity	8.8PB	4.4PB
Effective Maximum Memory Capacity	1536GB	768GB
Per-system specifications (high-availability dual controller)		
Controller Form Factor	4U	2U with 24 SSD slots
PCIe Expansion slots	10	4
FC target ports (32Gb autoranging)	32	16
FC target ports (16Gb autoranging)	40	16
100GbE ports (40GbE autoranging)	16	4
25GbE ports	16	16
10GbE ports	32	Not applicable
10Gbase-T (1GbE autoranging)	16	4
Storage Networking Supported	NVMe/TCP, NVMe/FC, FC, iSCSI, NFS, pNFS, CIFS/SMB, S3	
OS Version	9.12.1 and newer	
Shelves and Media	DG240N (2U, 24 drives, NVMe QLC SSDs)	
Power Consumption (Median)	1204W (with DG240N)	491W
Host/Client OS Supported	Windows Server 2019, Windows Server 2022, RedHat, SuSE, VMware, Citrix Hypervisor (CentOS, Ubuntu)	

DG Series Software Features

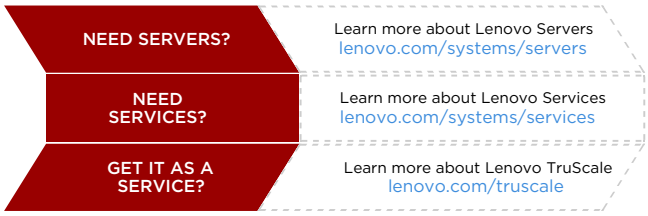
Data Access Protocols	FC, iSCSI, NVMe/FC, NVMe/TCP, CIFS/NFS, SMB, S3
High Availability	• Dual active/active controllers • Nondisruptive maintenance, upgrade, and scale-out clustering • Multi-site resilience for continuous data access
Storage Efficiency	• Inline data compression, deduplication, and compaction • Space-efficient LUN, file, and volume cloning • Automatic data tiering
Data Management	• Intuitive onboard GUI, REST APIs, and automation integration • AI-informed predictive analytics and corrective action • Easy provisioning and data management from market-leading host operating systems, hypervisors, and application software
Scalable NAS	• Large-scale single namespace management with local and remote caching
Data Protection	• Application-consistent Snapshot copies and restore • Integrated remote backup/disaster recovery • Synchronous zero-data-loss replication • Tamper-proof Snapshot copies
Security and Compliance	• Autonomous ransomware protection • Multi-factor admin access • Secure multitenant shared storage • In-flight and data-at-rest encryption • Regulatory-compliant data retention • Multi-admin verification before executing sensitive commands
Cloud Integration	• Seamlessly tier, back up, replicate, and cache data to private and public clouds • Move data between major public cloud services

About Lenovo

Lenovo (HKSE: 992) (ADR: LNVGY) is a US$62 billion revenue global technology powerhouse, ranked #171 in the Fortune Global 500, employing 77,000 people around the world, and serving millions of customers every day in 180 markets. Focused on a bold vision to deliver smarter technology for all, Lenovo is expanding into new growth areas of infrastructure, mobile, solutions and services. This transformation is building a more inclusive, trustworthy, and sustainable digital society for everyone, everywhere.

For More Information

To learn more about the Lenovo DM Series All-Flash Array, contact your Lenovo representative or Business Partner, or visit lenovo.com/storage. Or for detailed specifications, read the Product Guides.



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