

## Turbocharge Mission Critical Oracle® Applications with **ORACLE** NVMe-oF™ Shared Storage

### Highlights

- Gives your business a boost by turbocharging Oracle application performance
- Extends the high performance of NVMe™ flash to shared storage for Oracle databases
- Provides up to 368TB<sup>1</sup> capacity in a 2U unit that allows up to six hosts to attach without a switch
- Enables server and storage consolidation, reducing capital and licensing costs

### Challenges

- Increasing application demands are pushing Oracle environments past the performance capabilities of HDD or SSD storage capabilities
- Increasing Oracle transaction wait times which frustrate end users and decrease productivity
- Skyrocketing OPEX costs related to powering, cooling and managing multiple silos of data storage

### Solution

Western Digital's OpenFlex™ Data24 NVMe-oF™ Storage Platform will make your business thrive by accelerating transactions, simplifying workflows and reducing costs. With their ability to increase performance, lower costs and increase flexibility at scale, OpenFlex Data24 simplifies the storage and management of mission critical Oracle databases with an all-flash scale-out solution that can meet the TCO requirements of even the strictest environments.

### Turbocharge Mission-Critical Applications

Data is the fuel that powers your business. With faster transaction times, deeper insights, and smarter decisions, you can give your organization a competitive edge. But to fully capitalize on your data, you need peak performance from your Oracle environment. Oracle performance depends on the infrastructure you choose—how its implemented can have a big impact on the results.

Storage latency is arguably the most important aspect of database performance and storage with legacy SAS and SATA interconnects simply don't have the bandwidth to keep up with relational databases that perform a high frequency of I/O operations. Slow storage performance means slow database performance, which in turn means slower application performance.

### Why use NVMe-oF to Run Oracle Databases?

Flash technology has become the default choice for organizations looking to improve performance for their most demanding workloads. But, while flash offers major improvements over legacy storage, if your infrastructure still relies on SAS or SATA protocols, you're only getting a fraction of the performance that flash is capable of. NVMe-oF can unlock the full potential of flash and can enable Oracle environments to thrive by extending the high performance of NVMe flash to shared storage.

Instead of placing storage in a single SAN with limited connectivity and high network latency, storage is shared by servers connected to each other and the rest of the network with ultra-high-speed Ethernet. With a superior interface, shorter data path and a streamlined protocol, NVMe-oF delivers game-changing latency and bandwidth for I/O-intensive applications. From transaction processing to real-time analytics to machine learning and beyond, NVMe-oF can push your data strategy to the next level.



OpenFlex Data24 NVMe-oF Storage Platform

## Western Digital Leads The Way With NVMe-oF Technology

Flash technology has revolutionized the performance of storage systems and Western Digital leads the way with NVMe-oF technology that propels flash storage to its full potential. The OpenFlex Data24 NVMe-oF Storage Platform provides the flexibility to meet varying requirements depending on data workload and performance requirements and is built to deliver screaming performance in software-defined storage environments. With low latency and consistently high bandwidth, data is accelerated to the speed of flash and is shareable with up to six hosts without a switch.

The extremely low latency delivered by OpenFlex Data24 can reduce Oracle database transaction wait times by up to 50% over traditional storage arrays and are optimized to deliver optimal performance and capacity. Oracle infrastructures built on OpenFlex Data24 benefit from accelerated performance, improved responsiveness and increased agility of your business.

## Increase Performance and Lower Costs

OpenFlex Data24 is designed to provide customers with the performance needed to accelerate their business workloads by dramatically speeding up I/O operations. Faster I/O allows each server to handle more transactions resulting in the CPU spending less time waiting for data. The increased performance provided by all-flash NVMe-oF storage enables higher workload volumes while using fewer CPU resources—resulting in a reduction of the number of servers needed in your data center. Server resource consolidation means cutting capital and operational costs with fewer servers to power, cool, license and maintain.

## Ultrastar® DC SN840 NVMe SSDs

At the core of the OpenFlex Data24 NVMe-oF Storage Platform are Western Digital Ultrastar DC SN840 NVMe SSDs. The Ultrastar DC SN840 is a performance NVMe SSD targeting cloud compute and enterprise workloads that require low latency to data and high availability of data. The DC SN840 is Western Digital's 3rd generation of performance NVMe SSD for data center and extends Western Digital's leadership in dual-port architecture by vertically integrating proven flash controllers. Utilizing 96-layer 3D TLC NAND, it is available in capacities from 1.6TB to 15.36TB in a standard, front-loading 2.5" U.2 form factor.



Ultrastar DC SN840 NVMe SSDs

## Conclusion

More than ever, your business runs on data. With faster transaction times, deeper insights, and smarter decisions, you can gain a decisive edge on the competition. But to get there, you need peak performance from your applications and the Oracle database environment they depend on. Which means the choices you make for your database infrastructure have never been more important.

It's time to turbocharge your Oracle database performance with the OpenFlex Data24 NVMe-oF Storage Platform. Designed to deliver incredible performance, efficiency, and reliability, OpenFlex Data24 can help give your business a competitive edge—and make your data come alive!

For more information on how the OpenFlex Data24 NVMe-oF Storage Platform can turbo-charge Oracle environments and improve business operations, visit [westerndigital.com/platforms](https://www.westerndigital.com/platforms)

## Western Digital.

5601 Great Oaks Parkway  
San Jose, CA 95119, USA  
[www.westerndigital.com](https://www.westerndigital.com)

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<sup>1</sup> One GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes). Actual user capacity may be less due to operating environment.