



SOLUTION BRIEF

Push Your SQL Server® Data Strategy to the Next Level with OpenFlex™ Open Composable Infrastructure Storage

Highlights

- Gives your business a boost by accelerating SQL Server applications with predictable performance
- Lower Capex costs by providing optimal usage of SQL Server software licenses
- Allows shareable high-performance storage to be scaled independent of compute
- Lower Opex with dramatic savings in power, cooling, floor space and management costs

Challenges

- SQL Server applications providing sluggish response times, slow database queries and poor user experiences
- Unable to leverage real-time analytics to drive better decisions and business outcomes
- Increasing performance and capacity demands caused by ever increasing transactions and data volumes
- Unpredictable performance due to I/O bottlenecks
- Delivering storage with the right mix of performance and capacity to a wide range of applications and data types
- Underutilized software licenses

Solution

Western Digital's OpenFlex Open Composable Infrastructure storage solution was designed from the ground up to extract maximum performance from NVMe flash. By running your SQL Server database environment on a highly reliable, ultra-high-performance OpenFlex storage solution, your business can gain and keep its competitive edge.

Business Critical Workflows Require Elastic, Efficient and Open Storage Infrastructures

Your business depends on Microsoft SQL Server databases for data warehousing, analytics and online transaction (OLTP) workloads to feed these efforts. With faster transaction times, deeper insights and smarter decisions, you can gain a decisive edge on the competition. But that can be difficult without the right storage infrastructure.

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, without a modern shared storage infrastructure, you're only getting a fraction of the performance that flash is capable of. Today, NVMe™-over-Fabrics (NVMe-oF™) can unlock the full potential of flash and what lies beyond.

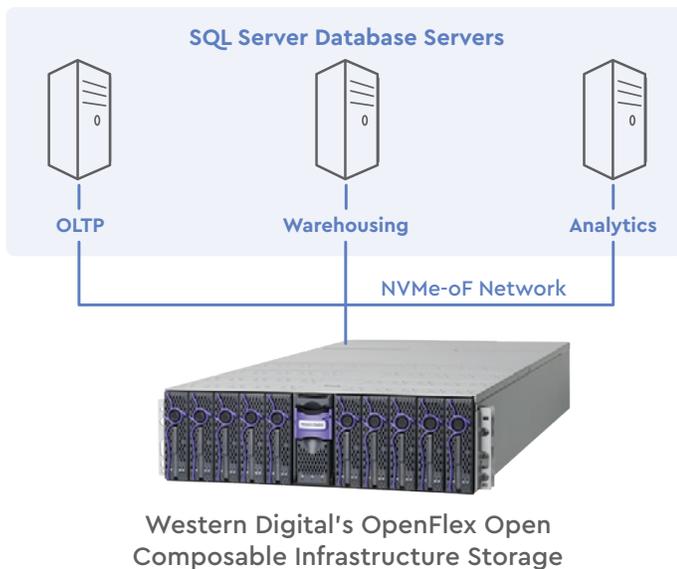
NVMe-oF is a networked storage protocol that allows storage to be disaggregated from compute to make that storage widely available to multiple applications and servers. By enabling applications to share a common pool of storage capacity, data can be easily shared between applications or needed capacity can be allocated to an application regardless of location. Exploiting NVMe device-level performance, NVMe-oF promises to deliver the lowest end-to-end latency from application to shared storage. NVMe-oF enables a composable storage infrastructure that can deliver the data locality benefits of directly attached NVMe storage (low latency, high bandwidth, high IOPS) while providing the agility and flexibility of sharing storage and scaling storage and compute independently based on application needs. NVMe-oF can accelerate your MS SQL Server Machine Learning (ML) and Artificial Intelligence (AI) projects to help ensure your revenue and productivity don't suffer.

Western Digital Leads the Way in NVMe-oF

50 years of innovation and one of the largest portfolios in the industry have made Western Digital a trusted partner to companies around the world. We provide core infrastructure to many of the world's largest enterprise IT and hyperscale data centers and innovate across all storage technology, from silicon to systems.

With the exponential growth in data, along with the increasing diversity of workflows and demands on IT infrastructure, businesses need to increase speed, agility and time-to-value for their customers. Western Digital's OpenFlex Open Composable Infrastructure storage solution with NVMe-oF technology is a new architectural approach that uses NVMe-over-Fabrics to dramatically improve compute and storage utilization, increase performance and provide agility in the data center.

OpenFlex NVMe-oF Open Composable Infrastructure Storage for SQL Server Database Environments



OpenFlex also enables you to take advantage of NVMe-oF performance to converge online transaction processing (OLTP) and online analytics processing (OLAP) applications onto a single sharable platform. With no need to copy or move data from an operational database to a siloed data warehouse to run analytics, your data analysts have more time to optimize business strategy.

Enterprise software is likely the fastest-growing line item in your budget, and many applications are licensed based on the number of CPU cores used. Providing a boost in performance that is sharable among multiple systems and/or applications can also help reduce Capex by consolidating more applications on a given server. This means you can use compute resources much more efficiently, reducing software licensing costs while achieving increased levels of predictable performance.

Conclusion

With Western Digital OpenFlex Open Composable Infrastructure storage, IT organizations can independently scale their storage needs for SQL Server database applications and, unlike Hyperconverged Infrastructure (HCI), they can also save SQL Server licensing costs to reduce the TCO.

Western Digital creates environments for data to thrive. As a leader in Open Composable Infrastructure storage, the company is driving the innovation needed to help customers capture, preserve, access and transform an ever-increasing diversity of data. Everywhere data lives, from advanced data centers to mobile sensors to personal devices, our industry-leading solutions deliver the possibilities of data.

To learn more about Western Digital OpenFlex Open Composable Infrastructure storage please visit:

<https://www.westerndigital.com/platforms>

Leveraging NVMe-oF to Dramatically Improve Database Response Times

OpenFlex Open Composable Infrastructure storage solves many of the biggest problems that can plague SQL Server applications: sluggish response times, slow database queries and poor user experiences. OpenFlex delivers predictable performance even under heavy loads. As an SQL Server database workload ramps up, OpenFlex can scale its performance to deliver consistent results and helps ensure SQL Server IO Read operations do not block write operations. Most important: it turbocharges demanding data applications like real-time analytics to drive better decisions and business outcomes.

Western Digital.

5601 Great Oaks Parkway
San Jose, CA 95119, USA
US (Toll-Free): 877.816.5740
International: 408.717.6000

www.westerndigital.com

©2020 Western Digital Corporation or its affiliates. All rights reserved. Western Digital, the Western Digital logo, and OpenFlex are registered trademarks or trademarks of Western Digital Corporation or its affiliates in the US and/or other countries. The NVMe and NVMe-oF word marks are trademarks of NVM Express, Inc. All other marks are the property of their respective owners.