



# Western Digital®

## MEDIA ALERT

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### WESTERN DIGITAL DELIVERS NEW LEVELS OF FLEXIBILITY, SCALABILITY FOR THE DATA CENTER

*Enhanced OpenFlex™ Data24 Platform Powered by the New RapidFlex™ Fabric Bridge Device and Ultrastar® Dual-Port NVMe™ SSDs Simplifies NVMe-oF™ Deployment for Next-Generation Disaggregated Storage*

**SAN JOSE, Calif., August 8, 2023** – From the cloud, to the edge, to the enterprise, data center architects are deploying higher levels of flash to unlock the potential of AI, object storage, file sharing and more. At the same time, they are laser-focused on controlling spend and must find solutions to help them manage, scale and utilize storage assets more efficiently. This is driving a growing trend to disaggregate and share NVMe flash over fabric (NVMe-oF) for improved performance, availability and flexibility of storage resources.

Helping customers simplify NVMe/NVMe-oF storage deployment, Western Digital (NASDAQ: WDC) today announced its enhanced OpenFlex Data24 3200 NVMe-oF JBOF/Storage Platform along with the next-generation RapidFlex A2000 and C2000 NVMe-oF fabric bridge devices (FBDs), and the new Ultrastar DC SN655 PCIe® Gen 4.0 dual-port NVMe SSD. These new storage solutions are enabling an ecosystem, providing more flexibility and choice for simplifying NVMe and NVMe-oF deployment for customers. Western Digital is now the only company with vertical integration capabilities targeting both ends of the Ethernet wire to deliver solutions where data travels from the server initiator to the storage target.

“NVMe-oF is poised to revolutionize modern data center infrastructure as it can unlock the performance of NVMe SSDs while efficiently sharing and scaling flash across multiple servers and applications,” said Randy Kerns, senior strategist at The Futurum Group. “Western Digital continues to drive ecosystem growth and open standards with its expanding portfolio of NVMe-oF solutions, which puts the company in an excellent position to continue to drive adoption across a broad spectrum of uses.”

#### **Fully Integrated OpenFlex Data24 3200 NVMe-oF Storage Platform**

The Western Digital [OpenFlex Data24 3200](#) is a fully integrated NVMe-oF storage platform that extends the performance of NVMe flash to a shared storage architecture. By separating storage resources from compute, and sharing it over Ethernet, OpenFlex Data24 becomes widely available to multiple applications and servers, allowing for greater resource control and scalability, leading to improved storage utilization without overprovisioning.

Using RapidFlex FBDs, the Data24 3200 allows up to six hosts to be attached without a switch. A switched environment allows scaling even more hosts and Data24 platforms, providing scale-out or scale-up capabilities from hundreds of terabytes to petabytes of NVMe flash with very low application latency. In addition to RDMA over converged Ethernet (RoCE), the enhanced Data24 now features new TCP connection support. Available in a 2U 24-bay platform and backed with a 5-year limited warranty, the Data24 3200 is built to deliver low power, high availability and enterprise-class reliability with up to 368TB<sup>1</sup> in a single platform of low-latency dual-port PCIe Gen 4.0 SSDs.

## Next-Generation RapidFlex FBDs: the A2000 ASIC and the C2000 Fabric Bridge PCIe Adapter Card

The RapidFlex family of NVMe over fabric bridge devices provide the foundational building blocks for OEMs/ODMs and large organizations taking a DIY approach to their software-defined infrastructure to enable next-generation workloads based on highly scalable shared storage across an Ethernet fabric. These second-generation low-power, high-performance FBDs come in two versions: the [RapidFlex A2000](#) controller, and the [RapidFlex C2000](#) that places the A2000 chip on a PCI adapter for powering solutions like the new OpenFlex Data24.

The new RapidFlex FBD is a unique state machine that exports the PCI bus over Ethernet, allowing externally connected SSDs to appear as if they were local to the server. The new family also doubles performance with an additional 100 GbE port (2x100Gb ethernet ports) matched to 16 lanes of PCIe Gen 4.0, and provides a PCIe root complex within all NVMe all-flash arrays, making it easy to qualify and deploy. The A2000 and C2000 FBDs add initiator mode capability to the existing target mode capability so customers can now deploy more cost-effective and lower power initiator cards in their servers instead of a conventional Ethernet NIC for NVMe-oF connectivity.

## Enterprise-class Ultrastar DC SN655 Dual-Port NVMe SSD

The [Ultrastar DC SN655](#) is a cost-effective, dual-port, high-capacity PCIe Gen 4.0 NVMe SSD designed for cloud, OEM and enterprise customers who need high-performance, high-capacity storage for a variety of applications and workloads such as disaggregated storage, object storage, storage servers and other mission-critical applications.

The Ultrastar DC SN655 is a vertically integrated SSD that provides a simple, scalable, single-port or dual-port path to ensure continuous data access for enterprise high-availability requirements. It also expands capacities from new 3.84TB to 15.36TB<sup>1</sup> targeting both storage and mixed workload compute applications, and increases drive reliability to 2.5 million hours mean time between failures (projected). Additionally, the SN655 reaches more than one million maximum random read IOPs and enhanced Quality of Service (QoS) for large unstructured workloads.<sup>2</sup> It comes in a drop-in U.3 15mm form factor and is U.2 backwards compatible. The SN655 also offers additional enterprise features like power-fail protection and end-to-end data path protection to ensure data is available when needed.

“With NVMe disaggregated storage becoming the reality, along with the exponential growth of data, our goal is to provide data architects with reliable and trusted SSDs and simplified NVMe-oF solutions to help them future-proof their storage strategy and deliver uncompromised performance at scale to meet the ever-changing workload demands,” said Kurt Chan, vice president and general manager of Western Digital’s Platforms business. “When combining RapidFlex and Ultrastar into the Data24, Western Digital gives organizations a transformative, next-generation way to share flash and bring greater value to their business.”

The OpenFlex Data24 3200 NVMe-oF Storage Platform, the RapidFlex family of A2000 and C2000 FBDs, and the Ultrastar SN655 dual-port NVMe SSD are now sampling.

## About Western Digital

Western Digital is on a mission to unlock the potential of data by harnessing the possibility to use it. With Flash and HDD franchises, underpinned by advancements in memory technologies, we create breakthrough innovations and powerful data storage solutions that enable the world to actualize its aspirations. Core to our values, we recognize the urgency to combat climate change and have committed to ambitious carbon reduction goals approved by the Science Based Targets initiative. Learn more about Western Digital and the Western Digital®, SanDisk® and WD® brands at [www.westerndigital.com](http://www.westerndigital.com).

<sup>1</sup> One terabyte (TB) is equal to one trillion bytes. Actual user capacity may vary depending on the operating environment.

<sup>2</sup> Based on internal testing. Performance will vary by capacity point, or with the changes in useable capacity. Consult product manual for further details. All performance measurements are in full sustained mode and are peak values. Subject to change.

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Key risks and uncertainties include volatility in global economic conditions; future responses to and effects of the COVID-19 pandemic or other similar global health crises; impact of business and market conditions; the outcome and impact of our ongoing strategic review, including with respect to customer and supplier relationships, regulatory and contractual restrictions, stock price volatility and the diversion of management's attention from ongoing business operations and opportunities; impact of competitive products and pricing; our development and introduction of products based on new technologies and expansion into new data storage markets; risks associated with cost saving initiatives, restructurings, acquisitions, divestitures, mergers, joint ventures and our strategic relationships; difficulties or delays in manufacturing or other supply chain disruptions; hiring and retention of key employees; our level of debt and other financial obligations; changes to our relationships with key customers; compromise, damage or interruption from cybersecurity incidents or other data system security risks; actions by competitors; risks associated with compliance with changing legal and regulatory requirements and the outcome of legal proceedings; and other risks and uncertainties listed in the company's filings with the Securities and Exchange Commission (the "SEC") and available on the SEC's website at [www.sec.gov](http://www.sec.gov), including our Form 10-K filed with the SEC on August 25, 2022 and our Form 10-Q filed with the SEC on May 10, 2023, to which your attention is directed. You should not place undue reliance on these forward-looking statements, which speak only as of the date hereof, and the company undertakes no obligation to update or revise these forward-looking statements to reflect new information or events, except as required by law.