Press Release

KIOXIA and NVIDIA Collaborate to Expand Effective High-Bandwidth Memory Capacity with SSDs

KIOXIA NVMe SSDs and NVIDIA SCADA Software Demonstrate Potential Memory Space Expansion Beyond 1 PB and Processing of 2 trillion Vectors

Germany, Düsseldorf, 27 November 2026 – KIOXIA Europe GmbH, today announced KIOXIA Corporation's collaboration with NVIDIA demonstrating the potential to effective GPU memory capacity to petabyte scale using NVIDIA SCADA software harnessing the performance of KIOXIA SSDs in support of NVIDIA's Storage-Next initiative. The collaboration demonstrates the potential to process a database of 2 trillion vectors on an NVIDIA GB200 NVL72 rack-scale system equipped with 144 KIOXIA XD8 Series 7.68 TB E1.S NVMe SSDs.

Rapid growth in AI datasets is placing increasing pressure on available GPU memory – typically high bandwidth memory (HBM) capacity. Processing these datasets with HBM alone can require dividing workloads into smaller segments and repeatedly moving data between memory and slower storage systems. By combining NVIDIA SCADA (short for Scaled Accelerated Data Access, a software library designed to extend effective GPU Memory capacity using NVMe SSDs, including for fine-grained data access using small block sizes) and Storage-Next software technologies with high-performance NVMe SSDs, the collaboration demonstrates an approach to making larger datasets accessible for AI processing beyond the capacity limits of HBM alone.

The proof of concept used an NVIDIA GB200 NVL72 rack-scale system with 18 server nodes and 144 KIOXIA XD8 Series 7.68 TB E1.S SSDs, providing approximately 1.1 PB of raw SSD capacity. Each node supported eight SSDs, with the configuration supporting nearly 60 TB of flash-based

extended memory capacity per node. The system supports 512-byte accesses with the potential to support 2 trillion 512-byte vectors across the architecture(1). This approach can support large-scale vector databases and the processing of large datasets used in graph neural networks (GNNs).

KIOXIA continues development of high-performance SSD technologies, including the current KIOXIA XD8 Series and innovative KIOXIA GP Series Super High IOPS SSDs, to address the evolving demands of AI and high-performance computing. Together with NVIDIA, KIOXIA remains engaged in evaluating the technical feasibility and performance of NVIDIA SCADA and the Storage-Next architecture, exploring ways to process large-scale AI datasets more efficiently.

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Notes:

1: Proof of concept testing performed by KIOXIA and NVIDIA as of November 26, 2026.

Definition of capacity: KIOXIA Corporation defines a megabyte (MB) as 1,000,000 bytes, a gigabyte (GB) as 1,000,000,000 bytes and a terabyte (TB) as 1,000,000,000,000 bytes. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB = 2^30 bytes = 1,073,741,824 bytes and 1TB = 2^40 bytes = 1,099,511,627,776 bytes and therefore shows less storage capacity. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software and operating system, and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

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About KIOXIA Europe GmbH

KIOXIA Europe GmbH is the European-based subsidiary of KIOXIA Corporation, a leading worldwide supplier of flash memory and solid-state drives (SSDs). From the invention of NAND flash memory to today's renowned BiCS FLASH™ 3D flash memory, KIOXIA continues to pioneer innovative memory solutions and services that enrich people's lives and expand society's horizons. The company's innovative BiCS FLASH™ 3D flash memory technology is shaping the future of storage in high-density applications, including advanced smartphones, PCs, automotive systems, data centers and generative AI systems. **Visit the KIOXIA website**

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