

WD Intros Ultrastar Memory Drive for In-Memory Computing

Written by Alice Marshall
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Western Digital (WD) targets in-memory computing with the Supercomputing 2018 launch of the Ultrastar DC ME200 memory extension drive-- a first product from the company designed to optimise in-memory system performance.



"Today's requirement for faster analytics, data processing, cloud services and high-performance computing (HPC) is increasing demand for in-memory computing across a variety of industries, including healthcare, telecommunications and IT, and retail," WD says. "By expanding in-memory capacity, the Ultrastar memory drive helps alleviate the high cost of adding extra DRAM, as well as addresses the physical limitations of available DIMM slots, where scaling is either cost-prohibitive or nearly impossible."

The DC ME200 promises "near-DRAM performance" while allowing customers to expand memory pools by up to x8 the DRAM capacity. It carries an optimised Ultrastar SN200 SSD built using planar 15nm MLC (2bits/cell) NAND, as paired with WD software defined memory over storage technology. The result is a chunk of fast PCIe storage configured as a virtual memory pool in line with system DRAM instead of storage. As such it is ideal for in-memory applications such as Redis, Memcached, Apache Spark and large-scale databases.

The drive is drop-in ready and compatible with most Intel x86 servers. Capacities include 1, 2 and 4TiB, and a typical 1U server can support up to 24TiB of system memory using the DC ME200 for in-memory compute clusters. Supported server interfaces are NVMe U.2 and PCIe AIC (add-in-card) HH-HL.

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