NGD Systems Announces Next-Generation Newport Platform for Computational Storage

Advanced platform "crosses the technology chasm;" enables computational storage capabilities in M.2, EDSFF, and U.2 form factors.

IRVINE, Calif. (PRWEB) August 02, 2018 -- NGD Systems, Inc., the leader in computational storage, today announced the launch of its "Newport" platform for next-generation computational storage devices. Balancing maximum capacity with low power consumption, optimized physical footprint, and matched performance in storage controllers has always been difficult. The NGD Systems Newport platform represents the first 16 flash channel ASIC-based computational storage solution that provides In-Situ Processing with NVMe 1.3 PCIe Gen 3.0 x4 storage performance in a variety of form factors including M.2 and EDSFF that do not suffer from performance due to power throttling like other architectures.

Dr. Jae Young Do, Researcher at Microsoft Research said, "Enabling computational storage for the mass market while still meeting storage and computing performance requirements mandates fitting it into the latest storage device form factors and power envelopes. NGD Systems' Newport 64-bit Linux platform with computational storage will accelerate scale-out image similarity search applications thanks to its complete software stack and support for container virtualization. This promises a new level of density for computational storage that will be important for a variety of markets, beyond just AI, like IoT, edge and fog computing, and big data."

While computational storage solutions have been developed in other forms and products, these platforms almost always represented tradeoffs, often between storage performance and computational storage implementation. The NGD Systems Newport platform provides a seamless programming model that eliminates these tradeoffs, allowing computational storage to "cross the chasm" and enter mainstream market use cases.

"Computational storage represents a paradigm shift in analytics for petabyte-scale data sets," said Nader Salessi, CEO, NGD Systems. "Our next-generation Newport platform enables computational storage to 'cross the chasm' from a niche use case to broad market adoption. In doing so, the Newport platform further enables near-data processing for real-time analytics on large-scale data sets with improved power and density, both in watts per terabyte and terabytes per cubic inch."

The Newport platform builds upon NGD Systems' already-successful Catalina-2 family of computational storage devices. Applications developed for Catalina-2 are fully compatible with the Newport platform, allowing existing customers to take advantage of Newport's capabilities with zero risk. The Newport platform will be productized with the only NVMe SSD available to support 16 flash channels in the M.2 and EDSFF form factors, providing these devices with the same bandwidth that U.2 and add-in cards currently provide, eliminating the power/performance trade-off faced by currently available solutions.

NGD Systems will be showcasing the Newport platform and computational storage solutions at Flash Memory Summit, Aug 7-9, in Santa Clara at the Santa Clara Convention Center. These solutions can be found on the show floor in booth 618. NGD Systems will also showcase their solutions in session on Wednesday August 8th (CTRL-202-1) and Thursday August 9th (COMP-301-1), as well as NGD Systems CTO, Dr. Vladimir Alves, in an Emerging Technology Keynote with special guest, Dr. Jae Young Do highlighting the results of the partnership with Microsoft Research, on Thursday August 9th at 11:40am.

About NGD Systems

Founded in 2013 with its headquarters in Irvine, California, NGD Systems is a venture-funded company focused on creation of new category of storage devices that brings computation to data. NGD has designed its advanced proprietary NVMe controller technology which deploys patented Elastic FTL algorithm and Advanced LDPC Engines to provide industry leading capacity and scalability. The platform also deploys the patented In-Situ Processing technology to enable Computational Storage capability. The company is led by an executive team that helped drive and shape the flash storage industry, with decades in leadership positions with storage companies such as Western Digital, STEC, Memtech, and Micron. For more information please visit https://www.ngdsystems.com.

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