Marvell's ThunderX2 Solution Now Deployed For Microsoft Azure Development

Arm-based server clusters for internal workloads spur continued product innovation

SANTA CLARA, Calif., Nov. 12, 2019 / PRNewswire -- Marvell (NASDAQ: MRVL) today announced that Microsoft is now deploying internal, production-level servers for Microsoft Azure based on Marvell's ThunderX2® server processor portfolio.

Marvell has collaborated with Microsoft and Ingrasys, a wholly owned subsidiary of Fii/Foxconn Technology Group, on the design and implementation of the ThunderX2 platform that is compliant with Microsoft's Project Olympus, Microsoft's next generation cloud hardware design. Microsoft's Project Olympus platform is open-sourced through the Open Compute Project (OCP).

Marvell's collaboration with Microsoft began at the OCP U.S. Summit in March 2017, where the two companies demonstrated cloud service workloads developed for Microsoft's internal use running on ThunderX2. Later that year, the companies released the detailed specification of the ThunderX2 server motherboard including block diagram, management sub-system, power management, FPGA card support, IO connectors and physical specifications to the open source community through OCP to enable other members to leverage the innovative platform architecture for their workload needs. As a result of this collaboration, Marvell has worked with Microsoft to enable Thunder X2 Arm®-based servers for Microsoft's internal workloads.

ThunderX2 is the second generation of Marvell's Armv8-based server processors supporting dual socket configurations and optimized to deliver the highest computational performance on an Arm server along with balanced IO connectivity, memory bandwidth and capacity. The Marvell® ThunderX2 processor family is fully compliant with Armv8-A architecture specifications and is optimized to drive high computational performance by delivering outstanding bandwidth and memory capacity. Leveraging low power consumption, energy efficiency and optimized architectural features of the Armv8 architecture, this environment is well suited to run an array of workloads across scale out cloud configurations and computationally intensive applications.

"Marvell and Ingrasys have collaborated to deliver a compelling platform solution addressing the most demanding quality and performance requirements of Microsoft Azure infrastructure," said Ben Ting, VP, Engineering and Product Operations of Ingrasys. "This deployment of ThunderX2 servers in Azure is the culmination of our collaboration that has spanned system design, firmware development, standards validation and application optimization. We also look forward to a continued positive impact on the entire Open Compute Project community as result of this implementation of Microsoft's Project Olympus."

"Microsoft's deployment of Marvell's ThunderX2 solutions in Azure further solidifies our position as one of the industry's most deployed Arm-based server solutions in the world," said Gopal Hegde, vice president and general manager, Server Processor Business Unit at Marvell Semiconductor, Inc. "Integrating ThunderX2 into Azure infrastructure and application software environments is another major milestone that demonstrates the maturity of the ThunderX2 platform."

"The deployment of Microsoft's Project Olympus cloud hardware with Marvell's ThunderX2 server processor is a milestone that enhances Arm64 product development on Azure cloud infrastructure," said Dr. Leendert van Doorn, Distinguished Engineer, Microsoft Azure, Microsoft Corp. "Microsoft is committed to driving platform innovation, and our expanded support for silicon architectures is part of our commitment to industry leadership and best practices. Collaborating with Marvell and Ingrasys has resulted in the most complete and highest performing Arm server solution possible for our internal use."

About Marvell

Marvell first revolutionized the digital storage industry by moving information at speeds never thought possible. Today, that same breakthrough innovation remains at the heart of the company's storage, processing, networking, security and connectivity solutions. With leading intellectual property and deep system-level knowledge, Marvell's semiconductor solutions continue to transform the enterprise, cloud, automotive, industrial, and consumer markets. To learn more, visit: https://www.marvell.com/

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