Marvell Releases New ARMADA Hyperscale Virtual SoC Families Featuring The ARM Cortex-A72 CPU With Advanced Networking And I/O Support

Virtual SoCs are designed with MoChi architecture with the high performance, low-power dual- and quad-core ARM® Cortex®-A72 processors, and augmented with a broad software ecosystem

SANTA CLARA, Calif. and TAIPEI, Taiwan, May 31, 2016 /PRNewswire/ -- Marvell (NASDAQ:MRVL), a world leader in storage, cloud infrastructure, Internet of Things (IoT), connectivity and multimedia semiconductor solutions, today announced the availability of production samples of the industry's first ARM® Cortex® -A72 based system-on-chip (SoC) families built on Marvell's ground-breaking MoChi™ architecture, the Marvell® ARMADA® 7000 and 8000. Marvell's ARMADA 7000 and 8000 families are scalable and are ideally suited for a wide range of IP appliances, data center, enterprise, small-to-medium business (SMB), and small office home office (SoHo) applications. The Marvell ARMADA 7000 (88F70x0) and 8000 (88F80x0) each feature dual- and quad-core ARM Cortex-A72 processors, delivering a high level of integration and efficiency as well as leading performance and power. These new offerings further strengthen Marvell's embedded processor leadership, expanding its award-winning ARMADA product suite. Both device families are already sampling with Tier-1 vendors around the globe and are in active designs.

The ARMADA 7000 and 8000 each feature a MoChi interface which enables driver-transparent expansion beyond the standard devices offering. All the connected MoChi modules appear to the ARMADA 7000 or 8000 driver as an integrated function, enabling a virtual system-on-chip (Marvell vSoC™) and customized I/O configurations. The new SoC families can integrate multiple 10GE ports with packet processor and additional offload engines for security and storage with full CPU and I/O virtualization.

"Marvell's new ARMADA SoC technology builds on our long history of design and innovation in the networking ecosystem, offering superior power and performance advantages that are ideal for virtual IP appliances and network function virtualization in the public cloud and enterprise markets," said Michael Zimmerman, Vice President and General Manager, Connectivity, Storage and Infrastructure (CSI) Business Units at Marvell Semiconductor, Inc. "Areas in compute, scalability, and the software ecosystem are increasingly being presented with challenges across many industries. We believe we have addressed these challenges head on by leveraging our MoChi architecture. Our new SoCs are designed to deliver top performance, efficiency and design integration, and support full virtualization. We are already witnessing great success with our global Tier-1 vendors."

"The growth of IoT-driven data requires a network infrastructure that deploys scalable and flexible compute solutions across the entire network," said Nandan Nayampally, Vice President of Marketing and Strategy, CPU Group, ARM. "The ARMADA 7000 and 8000 SoCs take advantage of the increased throughput and efficiency inherent in the Cortex-A72 core. Coupled with Marvell's MoChi technology, these SoCs enable the development of high performance and efficient platforms for SoHo, SMB, enterprise, and data center class applications."

Features of Marvell's ARMADA 8000 include:

- Quad- and dual-core ARM Cortex-A72 at 2.0GHz
- 1MB shared L2 cache; 1MB exclusive L3 cache
- Full ARMv8-A CPU virtualization and I/O virtualization
- Coherent memory subsystem
- Networking packet processor with 2x10GbE + 4x2.5GbE connectivity
- SuitB compatible, 10Gbp/s throughout security engine, IPSEC and SSL protocols offload
- DDR3/3L/4 32b/64b+ECC extension
- SATA3.0, USB3.0, PCIe3.0

Features of Marvell's ARMADA 7000 include:

- Quad- and dual-core ARM Cortex-A72 at 1.8 / 1.4GHz
- 1MB shared L2 cache; 1MB exclusive L3 cache
- Full ARMv8-A CPU virtualization and I/O virtualization
- Coherent memory subsystem
- Networking packet processor with 1x10GbE + 2x2.5GbE connectivity
- SuitB compatible, 5Gbp/s throughout security engine, IPSEC and SSL protocols offload
- DDR3/3L/4 32b+ECC extension
- SATA3.0, USB3.0, PCIe3.0

Marvell's award-winning ARMADA product family will be demonstrated at Computex 2016 in Taipei, Taiwan from May 31 – June 3.

For further information on Marvell's ARMADA 7K and 8K product families, please visit: http://www.marvell.com/embedded-processors/armada-70xx/ and http://www.marvell.com/embedded-processors/armada-80xx/.

About Marvell

Marvell (NASDAQ: MRVL) is a global leader in providing complete silicon solutions. From storage to cloud infrastructure, Internet of Things (IoT), connectivity and multimedia, Marvell's diverse product portfolio aligns complete platform designs with industry-leading performance, security, reliability and efficiency. At the core of the world's most powerful consumer, network and enterprise systems, Marvell empowers partners and their customers to always stand at the forefront of innovation, performance and mass appeal. By providing people around the world with mobility and ease of access to services, adding value to their social, personal and work lives, Marvell is committed to enhancing the human experience.

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