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Marvell Unveils the Industry's Most Comprehensive Custom ASIC Offering

Accelerates time-to-market and optimizes ROI with best-in-class standard product IP for custom silicon integration

SANTA CLARA, Calif., July 23, 2020 /PRNewswire/ -- Marvell (NASDAQ: MRVL) today announced a unique custom ASIC offering that addresses the stringent requirements of next generation 5G carriers, cloud data centers, enterprise and automotive applications. Marvell's comprehensive custom ASIC solution enables a multitude of customization options and a differentiated approach with best-in-class standard product IP including Arm[®]-based processors, embedded memories, high-speed SerDes, networking, security and a wide range of storage controller and accelerators in 5nm and beyond. By partnering with Marvell, customers gain enhanced performance, power and area resulting in accelerated time-to-market and providing optimal returns on investment.

Traditionally, data infrastructure manufacturers and cloud data center operators have had to choose between securing standard products or a full custom silicon solution designed in-house, while developing or licensing foundational IP as needed. Now, for the first time, Marvell is offering full access to its broad and growing portfolio of industry-leading data infrastructure standard product IP and technologies, which can be integrated and enabled in custom ASIC solutions at the most advanced technology nodes.

With its legacy as part of IBM, GlobalFoundries and AveraSemi, the Marvell ASIC team brings decades of expertise with the custom ASIC model across 14 leading-process nodes and has produced over 2,000 custom ASICs.

"The future of compute requires scalable and highly optimized solutions that can power the data center all the way to the network edge," said Mohamed Awad, vice president of Marketing, Infrastructure Line of Business, Arm. "Marvell brings a fresh and differentiated approach to addressing these requirements by uniquely utilizing Arm platforms to improve power, performance, and time-to-market for our mutual partners."

"Marvell custom ASIC has a rich history in significant customization, advanced interfaces and memory solutions. Our ability to pull optimized components, like the Arm processor subsystem, from across Marvell's product portfolio adds a whole new dimension to what we can deliver," said Kevin O'Buckley, general manager of the ASIC BU at Marvell. "The breadth of Marvell's infrastructure technology portfolio is unique in the industry – and is available in one comprehensive offering. We see this as an opportunity to deliver greater value to our existing customers while opening up possibilities for custom silicon implementations that had not previously been viable."

"Marvell's expanded offering unleashes new opportunities in the data center for acceleration, smartNIC, processor, security and storage offload," said Alan Weckel, founder and

technology analyst of 650 Group. "Marvell's early push into 5nm and beyond enables them to use the most advanced technologies with cutting edge interface and processor IP to build powerful and optimized ASIC solutions for data center and switching applications ranging from hyperscalers to service providers to enterprises."

Features and benefits of Marvell's 5nm and beyond ASIC technology solutions and its complementary portfolio include:

- Leading Arm-based offerings with high-performance and power-optimized solutions
 - Access to the latest processor technologies
 - Pre-optimized processor IP to improve power, performance, and time-to-market
- Multiple power-optimized SerDes solutions at 112G and beyond
 - Ability to solve demanding system topologies at reduced system cost
- Advanced packaging solutions for chiplets, integrated memory and optics
 - Lower board and ASIC costs
 - Simpler system integration
 - Bandwidth scaling and power reduction enabled with world-class SerDes
- Enhanced security, networking and memory IP for the most demanding applications
 - Leverage proven IP to reduce risk
 - Faster time-to-market
- Industry partnerships for integrated transceivers, embedded and flexible, programmable logic
 - Dramatic improvement in power consumption
 - Ability to rapidly update design without respin

More information on Marvell's unique custom ASIC offering can be found [here](#).

About Marvell

To deliver the data infrastructure technology that connects the world, we're building solutions on the most powerful foundation: our partnerships with our customers. Trusted by the world's leading technology companies for 25 years, we move, store, process and secure the world's data with semiconductor solutions designed for our customers' current needs and future ambitions. Through a process of deep collaboration and transparency, we're ultimately changing the way tomorrow's enterprise, cloud, automotive, and carrier architectures transform—for the better.

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