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Marvell Shipping High-Volume SONiC-Enabled Production Switch Silicon Into Tier-1 Clouds

Teralynx and Prestera Switches Enabling Data Center Disaggregation, Flexibility and Choice

SANTA CLARA, Calif., Nov. 10, 2021 /PRNewswire/ -- Marvell (NASDAQ: MRVL) today announced that that it is shipping SONiC-enabled production switch silicon of its Teralynx® 9K and Prestera® 8K devices in high-volume to tier-1 cloud customers. Leveraging Switch Abstraction Interface (SAI) and Software for Open Networking in the Cloud (SONiC), Marvell's Teralynx and Prestera devices are bringing greater flexibility and choice to cloud data centers grappling with the demand for greater bandwidth as data growth continues to surge. Through its continued investment in SAI, commitment to delivering disaggregated solutions based on SONiC, and support for open systems through ODMs and OEMs, Marvell is enabling faster innovation, agility and improved total cost of ownership (TCO).

In today's data economy, optimized infrastructure solutions that can move data reliably and efficiently have become a critical decision point for cloud providers deploying networking platforms across their data centers. With the acquisition of Innovium, Marvell now offers an expanded Ethernet switch portfolio to address a broad scope of market requirements. The Teralynx family is designed to enable the lowest latency, highest bandwidth solutions and complements the Prestera family which offers feature-rich packet processing for moving data within cloud data centers. By unifying both products under the SAI layer, Marvell enables a simplified deployment approach for customers leveraging SONiC.

SONiC is an open-source network operating system (NOS) based on Linux and built on SAI that runs on switches from multiple vendors. SONiC running on Marvell's Teralynx and Prestera switch silicon devices provides cloud customers with more choice and interoperability as well as the ability to scale. By enabling the disaggregation of network software and hardware for cloud data centers, Marvell is helping facilitate faster time-to-market of deployments, greater innovation and ultimately, cost savings.

"Marvell remains deeply committed to open systems and will continue to invest in and support SONiC solutions for our customers," said Guy Azrad, senior vice president and general manager, Switch Business Unit at Marvell. "Marvell's high-volume shipping of SONiC-enabled production switch silicon to tier-1 cloud providers showcases our technology leadership in combining our advanced packet processing architecture with the power of an agile, open network operating system."

"We have deployed Teralynx based switches in production across multiple data centers with the SONiC network OS. These switches deliver high performance, low-latency and rich telemetry required to run modern applications in our infrastructure," said Shawn Zandi, head

of Network Engineering at LinkedIn. "With Innovium's acquisition by Marvell, we look forward to benefiting from greater investment into the Teralynx roadmap and Marvell's continued commitment to SONiC."

Broad Ecosystem Support of Hardware System Providers for the Cloud

"Celestica delivers open disaggregated solutions that offer customers flexibility and compelling total cost of ownership," said Gavin Cato, VP, Celestica Hardware Platform Solutions. "We have been collaborating with Marvell to build high performance switch systems that are now deployed at scale by top cloud service providers, addressing the ever increasing need for bandwidth."

"Edgecore looks forward to the continued collaboration with Marvell to bring leading networking solutions for our service provider, data center, and enterprise customers," said Heimdall Siao, president of Edgecore Networks. "With Marvell's technology and Marvell's proactive support of the open SONiC software ecosystem, Edgecore is able to provide high performance and cost-effective solutions using community based open networking solutions which allows our customers and partners to achieve more."

"The Ingrasys EBOF storage, powered by Marvell's Prestera switch and NVMe-oF Ethernet controllers, enables new levels of compute and storage disaggregation with no compromise in performance," said Brad Reger, principal architect at Ingrasys Technology. "By running SONiC on the Prestera switches, Marvell and Ingrasys are supplying industry-standard, open-source networking to enable high-performance, flexible and efficient storage for modern data centers."

Underscoring its commitment to open source and interoperability, Marvell is demonstrating the leading-edge capabilities of its networking and electro-optics portfolio. Leveraging the SONiC network operating system, the demo showcases a complete data center offering which includes Marvell's Teralynx and Prestera switches, and its electro-optics modules and DSPs. The demo, which can be viewed here, illustrates how open-source technology enables disaggregated solutions in a cloud data center fabric in a leaf-spine topology and includes the following technologies:

- **Teralynx switches** delivering scalable performance with high radix, best-in-class latency and advanced telemetry
- **Prestera switches** architected from the ground up with insightful telemetry, flow-aware intelligence, scalable performance and advanced integrated security technologies
- **Marvell Electro-Optics** including COLORZ® II 400ZR in QSFP-DD form factor, PAM4 DSPs, TIAs and drivers bring unprecedented power efficiency and speed for data center interconnect (DCI) applications
- **Keysight Technologies SONiC Test Platform** validating device performance and conformance and driving SONiC adoption through standardized testing

At the OCP Global Summit taking place today at the San Jose Convention Center, Marvell's Gidi Navon, senior principal architect, will present, "Using Open Interfaces to Advance AI/ML for Networking" at 11:25 a.m., room LL20A.

The future architecture of the cloud data center will be more connected than ever – with optics forming the interconnect fabric. With the broadest technology platform in the industry, Marvell is positioned as the semiconductor solutions partner of choice for the cloud. Marvell's comprehensive portfolio of offerings includes cloud-optimized Ethernet switches;

high-speed electro-optical PAM4 and coherent DSP chipsets; pluggable COLORZ DCI modules; OCTEON®-based DPUs for security, offload, and acceleration; custom Arm®-based server CPUs; full custom ASICs; and Bravera™ Flash and HDD-based storage.

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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