

Marvell Expands 5nm Data Infrastructure Portfolio With New Prestera Carrier Switch And OCTEON 10 DPU

Solutions Deliver Higher Performance and Lower Power for Next-Generation 5G Carrier Edge Networks and Newest RAN Deployment Models

SANTA CLARA, Calif., Oct. 5, 2021 /PRNewswire/ -- Marvell (NASDAQ: MRVL) today announced the expansion of its industry-leading 5nm data infrastructure platform with the launch of the industry's first 5nm 50G PAM4 device for the carrier market, the Prestera® DX 7321 Ethernet switch. The new switch builds on the success of the Prestera carrier-optimized portfolio and is ideal for 5G fronthaul and edge connectivity. In concert with this, Marvell's 5nm OCTEON® 10 DPU family, incorporating industry-leading hardware accelerators, is now sampling. By utilizing the industry's leading advanced process geometry, the Marvell Prestera switch and OCTEON DPU deliver 50% lower power than existing offerings, enabling new infrastructure solutions for next-generation carrier edge networks and RAN deployment models.

With the addition of the 5nm Prestera device, the expanded carrier-optimized switch portfolio now comprises four cutting-edge Ethernet switches that scale port speeds from 1Gbps to 400Gbps with aggregate bandwidths ranging from 200Gbps to 1.6Tbps. The newest offering enhances Marvell's 5G solutions for Open RAN, vRAN and traditional RAN architectures, with Class D precision time protocol (PTP), which provides more timing headroom to enable larger cell coverage radius. The switch device incorporates integrated MACsec security and advanced telemetry to facilitate network visibility and automation.

This innovative Prestera switch complements Marvell's high performance, end-to-end 5G network portfolio comprising of leading-edge OCTEON Fusion® baseband processors and OCTEON multi-core DPUs, including the latest OCTEON 10 offering. Marvell's OCTEON 10 family is optimized to address the most demanding workloads required by 5G, cloud, carrier and enterprise data center applications. To deliver best-in-class performance, power and cost across these applications, each OCTEON 10 device combines the optimal mix of compute, hardware acceleration, data path bandwidth, and industry-leading I/O including PCIe 5.0 and DDR5. Marvell's 5G network solutions also include Alaska® Ethernet PHYs and a broad portfolio of optical solutions for edge, metro and long-haul applications. In addition, Marvell's COLORZ® II 400ZR/ZR+ coherent optical modules are enabling carriers with high-capacity, long-reach DWDM connectivity directly from Ethernet switches.

"Carriers are requiring optimized high-performance, low-power and secured next-generation 5G data infrastructure solutions that enable new high-value applications," said Raghib Hussain, president, Products and Technologies at Marvell. "Our 5nm switch and DPU set a new bar for power, performance and footprint, providing the breakthrough technology needed to fulfill the potential of 5G."

"This important collaboration is a continuation of our commitment to developing our 5G ReefShark chipset portfolio and ensuring our 5G solutions deliver a best-in-class performance to our global customer base. We are delighted to cooperate with Marvell to bring industry-leading silicon technology to market, allowing us to deliver a high performance with enhanced speed and capacity and serve our customers' needs as the demand for 5G services increases," commented Mark Atkinson, SVP, Radio Access Networks PLM at Nokia.

"We are excited to work with Marvell to bring access and edge networking solutions to customers building high performance carrier infrastructures," said Atsushi Ogata, president and CEO, IP Infusion. "The combination of IP Infusion's OcNOS® network operating system and the Prestera family provides an optimal solution for xHaul markets, enabling customers to experience a feature-rich open networking software stack on state-of-the-art switch silicon that will accelerate the adoption of disaggregated networking."

"Our research finds rapidly growing demand in the carrier market for high-performance, small form factor disaggregated 5G RAN platforms that meet the wide range of requirements for edge connectivity," said Shin Umeda, vice president, Dell'Oro Group. "Marvell's announcement of the industry's first 5nm DPU and switch solutions marks a milestone achievement that will advance next-generation RAN infrastructure and deliver on 5G's potential."

Availability

The 5nm Prestera switch and 5nm OCTEON 10 5nm DPU are available today.

More information on the new addition to the Prestera DX 7300 family can be found on the [Marvell Carrier Switching web page](#). More information on the OCTEON 10 DPU family can be found on the [Marvell Data Processing Units web page](#).

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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