Marvell Enables NVMe Over Fabrics Storage Disaggregation For VMware Virtualized Data Centers

vSphere 7.0 Integrates QLogic Fibre Channel and FastLinQ Ethernet Solutions to Deliver Low-Latency Storage Access for Cloud Native and Enterprise Applications

SANTA CLARA, Calif., April 16, 2020 /PRNewswire/ -- Marvell (NASDAQ: MRVL) today announced that its QLogic® Fibre Channel and FastLinQ® Ethernet adapter solutions enable NVMe™ over Fabrics (NVMe-oF™) technology in VMware vSphere 7.0. As data growth continues to skyrocket, data centers are grappling with increasing power consumption, complexity and cost associated with the demand for greater storage bandwidth and capacity. The integration of Marvell's Fibre Channel and Ethernet adapters into vSphere 7.0 allows low-latency, high-performance NVMe flash storage to be effectively shared, pooled and managed across a fabric resulting in cost-efficient enterprise and hybrid cloud data center scale-out architectures.

In enterprise and multi-tenant containerized data center environments, users of VMware vSphere 7.0 can benefit from Marvell technology by leveraging the latest innovations and advances in high-performance flash storage to be realized over proven Fibre Channel (FC-NVMe) and Ethernet RDMA (NVMe/RDMA) fabrics. Marvell's QLogic 269x 16GFC and 2700 32GFC Series HBAs provide low latency, highly deterministic and concurrent FCP and FC-NVMe storage access. QLogic 2770 Series HBAs deliver 50% more IOPS, security backed by silicon root of trust and virtual machine telemetry powered by StorFusion™ VM-ID technology. This rich feature set enables performance-centric and latency-sensitive applications to securely scale on a virtualization-aware storage area network.

Marvell FastLinQ 41000 and 45000 Series Ethernet Adapters support NVMe/RDMA over both RoCEv2 and iWARP protocols. Starting with VMware vSphere 7.0, customers can leverage NVMe/RoCEv2 capabilities of FastLinQ NICs while future-proofing their data centers for potential use cases of NVMe/iWARP and NVMe/TCP. FastLinQ Universal RDMA capability, combined with future support for NVMe over TCP, provides IT managers with the broadest choice of options to scale out NVMe.

Today's announcement also marks continued momentum in accelerating Marvell's vision for end-to-end Ethernet storage, specifically the innovative Ethernet Bunch of Flash (EBOF) architecture for optimal disaggregated high-performance flash storage. By deploying vSphere 7.0, data center operators can use Marvell's FastLinQ adapters to power Marvell's EBOF architecture comprised of NVMe-oF Ethernet SSD converter controllers, SSD controllers and Prestera® Ethernet switches. Edge-to-cloud data centers can significantly achieve greater performance and lower total cost of ownership (TCO) utilizing this scalable architecture.

"Data center modernization strategies are moving toward a shared infrastructure, disaggregation of resources, and dynamic provisioning of storage to provide the right amount of storage and performance based on workload and SLAs," said Seamus Crehan, president and founder of Crehan Research Inc. "This announcement around NVMe over Fabrics for VMware vSphere can help solve a significant portion of the IT resource disaggregation challenge, enabling business efficiency and investment protection."

"NVMe over Fabric technologies are unlocking the value of NVMe flash by delivering a variety of low latency, scalable and trusted fabrics," said Vikram Karvat, vice president and general manager, Server Connectivity Business Unit at Marvell. "The introduction of Marvell's QLogic FC-NVMe and FastLinQ NVMe/RoCEv2 technologies into industry-leading virtualization platforms from VMware enables end users to leverage economies of scale when deploying NVMe without compromising the performance, reliability or manageability of their infrastructure."

"VMware and Marvell solutions have been an integral part of every wave of virtualization and storage innovation in the data center for several years," said Sudhanshu Jain, director of product management, Cloud Platform, VMware. "Marvell's QLogic FC and FastLinQ Ethernet technology with vSphere 7.0 enables customers to leverage existing SAN infrastructure and migrate to FC-NVMe to take advantage of performance and cost matrix."

Availability
Marvell FastLinQ 41000/45000 Series NICs, QLogic 269X and 2700 Series 16/32G FC HBAs are available from Marvell and multiple leading server and storage system OEMs and ODMs worldwide. Customers can download the latest software that enables NVMe/RoCEv2 and FC-NVMe on VMware vSphere 7.0 by visiting www.marvell.com/support.

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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