Broadcom Announces Production Availability of Industry's First 100G Programmable Storage Adapter with NVMe-oF Support

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Highly-optimized Stingray™ storage target adapter delivers breakthrough performance and significant power and size advantages

SAN JOSE, Calif., Aug. 07, 2018 (GLOBE NEWSWIRE) -- Broadcom Inc. (NASDAQ:AVGO) today announced production availability of the Stingray™ PS1100R 100G PCIe adapter solution for Ethernet connected NVMe™ over Fabrics (NVMe-oF™) storage applications. The PS1100R adapter card provides an out-of-the-box storage fabric enabled solution for next generation Just a Bunch of Flash (JBOF) and Fabric-attached Bunch of Flash (FBOF) appliances.

The Stingray SoC offers significant advantages by integrating Broadcom's market-proven 100G NetXtreme® Ethernet NIC, eight high-performance 3GHz 64-bit ARM® v8 Cortex®-A72 cores, hardware accelerators for cryptographic security, RAID and Dedup, and PCIe Gen 3.0 connectivity. This high level of SoC integration minimizes the overall power consumption and chip area compared to multi-chip solutions. The open and highly programmable ARM based architecture of the Stingray provides a flexible software defined platform. Fabricated in a 16nm FinFET+ process, the Stingray enables the highest available A72 CPU performance to deliver breakthrough data plane acceleration and storage performance in a compact form factor.

Key Features & Benefits

- Highly optimized 100G Ethernet NVMe-oF storage target adapter
- RoCEv2 for low latency data access and high I/O performance
- NVMe/TCP for ease of disaggregated storage deployment in any TCP network
- Hardware offload for RAID/Erasure, dedup and security to accelerate storage services
- Software defined storage enabled by eight high performance 3GHz A72 ARM cores
- Standard PCIe form factor supporting PCIe based storage JBOFs

"Our Stingray SoC provides industry leading bandwidth and IOPS in a low power footprint specifically designed to fit into small adapter form factors like the PCIe half-height, half-length standard," said Dan Harding, vice president of marketing of the Compute and Connectivity Division at Broadcom. "The production availability of the 100G adapter card is an important milestone for Broadcom and the industry in general as it enables immediate deployment of NVMe over Fabrics. The programmability of the Stingray device gives customers multiple transport options including RDMA and TCP, as well as the ability to evolve with future standards."

Availability

Following are the Stingray PCIe storage and Smart NIC adapters in production. Please contact your local Broadcom sales representative for samples and pricing.

PS1100R PCIe Storage Adapters

- BCM958804A8041C: single port 100Gb/s with 8 GB DDR4 and passive heat sink
- BCM958804A8040C: single port 100Gb/s with 8 GB DDR4 and active heat sink

PS225 PCIe Smart NIC Adapters

- BCM958802A8044C: dual-port 25 Gb/s with 4 GB DDR4
- BCM958802A8048C: dual-port 25 Gb/s with 8 GB DDR4

Broadcom will showcase its latest Stingray products in the Broadcom Booth 729 at the Flash Memory Summit (FMS) 2018 exhibition in Santa Clara, California from August 7th to 9th.

Further information on Broadcom's PS1100R and PS225 adapters is available online at
https://www.broadcom.com/products/ethernet-connectivity/network-adapters/ps1100r
https://www.broadcom.com/products/ethernet-connectivity/network-adapters/ps225

Quotes

"We have a good history of working with Broadcom and believe their new Stingray adapter will help enable a new generation of NVMf composable infrastructure as it delivers extreme performance, availability and storage offload functions in a standard PCIe adapter," said Scott Hamilton, senior director of product management at Western Digital's Data Center Systems business unit. "We look forward to collaborating with Broadcom to help enable new breakthrough levels of scalability, efficiency and performance for Fast Data and Big Data applications."

Ziv Serlin, co-founder and VP of Architecture for E8 Storage commented, "E8 Storage is focused on providing a high performance NVMe storage solution that makes flash deployment as seamless as possible. We've worked with Broadcom to integrate our E8 Agent software with Broadcom's Stingray solution to offload computing resources and deliver host performance acceleration in a PCIe adapter form factor. The unique capabilities of the integrated Stingray NIC solution are ideal for the data intensive applications such as analytics, genomics, and AI / ML that E8 Storage's customers

are known for."

"Broadcom's Stingray 100G PCIe adapter was an easy choice as the core SoC solution to drive our portable peta-scale computational storage solutions," said Dr. Rick Carlson, CEO of Agylstor. "The eight A72 ARM CPUs at 3GHz coupled with well thought out hardware acceleration in the Stingray SoC enables us to provide dramatic performance within an extremely low power envelope."

About Broadcom
Broadcom Inc. (NASDAQ:AVGO) is a leading designer, developer and global supplier of a broad range of digital and analog semiconductor connectivity solutions. Broadcom Inc.'s extensive product portfolio serves four primary end markets: wired infrastructure, wireless communications, enterprise storage and industrial & other. Applications for our products in these end markets include: data center networking, home connectivity, set-top box, broadband access, telecommunications equipment, smartphones and base stations, data center servers and storage, factory automation, power generation and alternative energy systems, and electronic displays. For more information, go to www.broadcom.com.

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