Broadcom Announces Industry-Leading Connectivity Portfolio for Hyperscale Video Storage at Scale

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Connected by Broadcom, Unveils Industry's Broadest Storage Solutions for End-to-End Connectivity Portfolio

SAN JOSE, Calif., Oct. 13, 2022 (GLOBE NEWSWIRE) -- Broadcom Inc. (NASDAQ:AVGO), the market leader in hyperscale video storage connectivity, today announced it is expanding its silicon, software and hardware storage connectivity products with enhanced performance, capabilities and power. This expanded product portfolio is the result of multi-generational investments that are intended to aid hyperscale data centers to manage and maintain the storage connectivity they need to deliver video storage at scale.

Today's hyperscale data centers are facing an unprecedented growth in storage demand, driven by video-intensive content, including social media, streaming services, collaboration, and many other digital transformation applications. Managing the growth of this data requires infrastructure that is not only performant and scalable, but maintains a high level of security while ensuring manageability using advanced telemetry and diagnostics.

"Hyperscale data centers are inundated with data, including massive amounts of user generated video content and are projected to deploy a majority of the industry's storage," said Charlie Kawwas, Ph. D., president, Semiconductor Solutions Group, Broadcom. "Broadcom is leading innovation at the core technology, product, and end-to-end connected portfolio. Our leading-edge video processing solutions are setting new benchmarks in video storage delivering the lowest power and latency, while delivering the highest performance in the industry— all Connected by Broadcom."

Broadcom is leading the transition from compute-centric to connectivity-centric data centers for hyperscale storage systems. The portfolio connects components inside the storage network, to the storage systems and ultimately, storage media. Broadcom's investment scale and commitment to this segment enables end-to-end power-optimized performance for video offload, delivering much more power and simplified interoperability and support for the ecosystem.

- **51TB Ethernet Switch Tomahawk 5:** A family of high speed, high radix, low latency, Top of Rack Ethernet switches expanding hyperscale storage clusters through 200G, 400G or 800G standard Ethernet connectivity. The latest member, Tomahawk 5, delivers an unprecedented 51.2 Tbps performance, making it the highest bandwidth switching chip on the market today at the lowest power consumption. Newly introduced Cognitive Routing and rich set of programmable in-band telemetry enable the highest precision end-to-end congestion control, maximizing network utilization for the most demanding storage networks.

- **200G Ethernet RDMA NICs:** Ethernet NICs connect storage systems to the network using RDMA over Converged Ethernet (RoCE). Cloud providers are selecting Broadcom for its industry-leading power and hardware-based congestion control that delivers the lowest deterministic latency at scale.

- **Video Offload Accelerator:** Video accelerators help offload compute intensive high density video transcoding functions from the general-purpose CPU. These custom hardware accelerators support advanced codec formats including H.265, VP9 and AV1 driving approximately 100x more efficiency as compared to video transcoding software run on general-purpose CPU.

- **9600 Storage HBAs:** The 8th generation HBAs connect host CPUs to drives and storage expanders. The 9600 series doubles performance and enables industry-first features like OCP fast fail and multi-actuator support, while supporting advanced security features like hardware secure boot and attestation.

- **SAS4 Storage Expanders:** Storage expanders connect hundreds to thousands of drives to storage HBAs. The industry's most trusted expander now supports 24G SAS, advanced bandwidth aggregation, and enhanced security. It also utilizes Broadcom's SerDes to reduce overall system power and cost.

- **Custom HDD Controller SoCs**: The HDD controller SoC connects the drive to the storage HBA or expanders. Broadcom's read channel technology and IP enable the industry's highest areal density HDDs at the lowest operating power. These custom SoCs share a common in-house SerDes with Broadcom's latest HBAs, expanders, and IO controllers to provide robust interoperability at a massive scale.

- **TrueStore HDD PreAmps:** HDD PreAmps connect the HDD SoC to the platters. They are highly complex, mixed signal devices responsible for accurately recording and reading back data from the disks inside a HDD. The latest TrueStore PreAmps enable advanced recording technologies such as Energy-assisted Perpendicular Magnetic Recording (ePMR) and Heat Assisted Magnetic Recording (HAMR), with the industry's highest capacity and low power.

For more information on Broadcom's data center solutions please click here. To learn more about Broadcom storage connectivity products click here.

About Broadcom

Broadcom Inc. (NASDAQ: AVGO), a Delaware corporation headquartered in San Jose, CA, is a global technology leader that designs, develops and supplies a broad range of semiconductor and infrastructure software solutions. Broadcom's category-leading product portfolio serves critical markets including data center, networking, enterprise software, broadband, wireless, storage and industrial. Our solutions include data center networking and storage, enterprise, mainframe and cyber security software focused on automation, monitoring and security, smartphone components, telecoms and factory automation. For more information, go to https://www.broadcom.com.

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Industry Quotes:

Ed Chapman, Vice President Business Development and Strategic Alliances, Arista
"We are pleased to enjoy a longstanding relationship with Broadcom. Our deep collaboration has empowered high performance next generation 100G/200G and 400G networks with low latency and jitter to support the file-based workflows, video streaming, and the live production real-time broadcast applications our customer's demand."

Ali Zafar, Head of Hybrid Infrastructure, Dropbox
"As the first major technology company to adopt high-density Shingled Magnetic Recording (SMR) technology for our storage drives, Dropbox continues to look for improvements in storage technology, in particular for more cost-efficient storage without compromising reliability or performance. Broadcom's unique features on SMR allowed us to maximize our storage footprint, which is critical for running a cost-efficient, high-performing data center."

Chris Petttey, Director Hardware Storage, Meta
"We are happy to collaborate with Broadcom on video offload, and HDD-based storage as these technologies continue to be key elements for the OCP community and we are pleased to see Broadcom continue to invest in this space."

Steve Scott, Technical Fellow and Corporate Vice President, Hardware Architecture, Microsoft Azure
"HDD-based storage will continue to be key for Microsoft Azure as we aim to continue advancing data center architectures in order to empower our customers to achieve more. We are happy to see Broadcom continue to invest in this space."

Jeffrey Nygaard, Executive Vice President, Worldwide Operations and Technology, Seagate Technology
"Seagate continues to innovate HDD and storage system technologies to offer cloud and hyperscale customers cost effective, power efficient, and secure mass capacity solutions to address a growing number of data-intensive applications. We are pleased to continue to partner with Broadcom to support our broad product portfolio and enable our customers to unlock the value of their data."

Ravi Pendekanti, Senior Vice President, HDD Product Line Management, Western Digital Corporation
"Achieving greater economies of scale in cloud and hyperscale data centers is vital as the industry enters the zettabyte era. Western Digital's multi-generation storage solutions partnership with Broadcom continues to deliver a unified storage effort with next-generation solutions to meet this explosion of data storage in stride."

Dave Vellante, Chief Analyst, Wikibon Research
"This announcement provides more evidence that connectivity and the underlying hardware that supports it have become more critical than ever before. As more workloads run in the cloud, and as the demands of these workloads increase in scale, optimizing infrastructure becomes more challenging. Broadcom continues to demonstrate it understands how to deliver balanced and consistent performance while at the same time increasing levels of efficiency. The latest upgrades to its cloud data center storage connectivity portfolio further support these trends."

Source: Broadcom Inc.