# Broadcom Revolutionizes AI Networking Landscape with High-Performance 400G RoCE/RDMA Ethernet NICs

May 20, 2024

## Cutting-Edge PCIe Technology Empowers Seamless Integration of Open Standards and Fabric Interconnects for AI Clusters

PALO ALTO, Calif., May 20, 2024 (GLOBE NEWSWIRE) -- Broadcom Inc. (NASDAQ: AVGO) today announced its latest portfolio of highly-scalable, high-performing, low-power 400G PCIe Gen 5.0 Ethernet adapters to revolutionize the data center ecosystem. These latest products offer an enhanced, open, standards-based Ethernet NIC and switching solution to resolve connectivity bottlenecks as XPU bandwidth and cluster sizes grow rapidly in AI data centers.

“At Broadcom, we recognize the significance of fostering a power-efficient and highly connected data center for AI ecosystem,” said Jas Tremblay, vice president and general manager of the Data Center Solutions Group, Broadcom. “Broadcom is prioritizing open standards and fostering collaboration with industry leaders to deliver the most extensive selection of high-performance connectivity solutions for AI infrastructure. Our 400G PCIe Gen 5.0 Ethernet adapters yet again underscore our commitment to enable the network-centric AI infrastructure platform.”

As the industry’s first Ethernet adapter built with 5nm process technology, the new portfolio enables the most power and thermally efficient design in the market. Combined with the device’s ability to drive passive copper cables up to five meters or ultra-low power linear pluggable optics transceivers and Broadcom’s high-radix Ethernet switches, the adapter delivers higher rack density using mainstream air-cooling technology.

The Broadcom family of Ethernet adapters meets the growing demand for higher data transfer speeds required in future AI networks. Equipped with a third-generation RoCE pipeline, low-latency congestion control technology and innovative telemetry features, the portfolio is ideal for the high-bandwidth, high-stress network environment that characterizes AI infrastructure.

“As the industry races to deliver generative AI at scale, the immense volumes of data that must be processed to train LLMs require even larger server clusters. Scalable high bandwidth, low latency connectivity is critical for maximizing the performance of these AI clusters,” said Patrick Moorhead, CEO & chief analyst at Moor Insights and Strategy. “Ethernet presents a compelling case as the networking technology of choice for next generation AI workloads. The 400G NICs offered by Broadcom, built on its success in delivering Ethernet at scale, offers open connectivity at an attractive TCO for power-hungry AI applications.”

This leading-edge next-generation portfolio is backed by Broadcom’s long-term, proven execution and multi-decade heritage of high-performance Ethernet solutions, from 1G to 400G. It features Broadcom’s sixth generation-hardened NIC architecture and expands the company’s AI portfolio to fortify its Ethernet data center infrastructure leadership.

The adapter software, designed to be vendor agnostic, supports a broad ecosystem of CPUs, GPUs, PCIe and Ethernet switches using open PCIe and Ethernet standards. In line with Broadcom’s objectives as a founding member of the Ultra Ethernet Consortium, this approach underscores the company’s commitment to a standards-based ecosystem.

**Availability**
The 400G PCIe Gen 5.0 Ethernet family (BCM57608) is broadly available from multiple server vendors, as well as from Broadcom. For more information on the entire Ethernet adapters portfolio from Broadcom please click here.

**About Broadcom**
Broadcom Inc. (NASDAQ: AVGO) is a global technology leader that designs, develops, and supplies a broad range of semiconductor, enterprise software and security solutions. Broadcom's category-leading product portfolio serves critical markets including cloud, data center, networking, broadband, wireless, storage, industrial, and enterprise software. Our solutions include service provider and enterprise networking and storage, mobile device and broadband connectivity, mainframe, cybersecurity, and private and hybrid cloud infrastructure. Broadcom is a Delaware corporation headquartered in Palo Alto, CA. For more information, go to www.broadcom.com.

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**Industry Quotes:**

**Forrest Norrod, Executive Vice President and General Manager of the Data Center Solutions Business Group, AMD**
“Broadcom and AMD share a commitment to delivering highly-performant, standards-based technologies that power the modern data center. Our joint work aims to bring together an ecosystem of open networking solutions that are critical to enabling the most demanding workloads like generative AI.”

**Martin Hull, Vice President Systems and Platform Product Management, Arista**
“Arista and Broadcom continue to work together to deliver industry-leading Ethernet solutions for high performance, cost and power-efficient connectivity,” said Martin Hull, vice president, Systems and Platform Product Management, Arista. “End-to-end performance is critically important. Broadcom’s 400G Network Adapter with high performance SerDes enables us to connect switches and servers using cost-effective cables or ultra-low

power linear drive optics.”

**Travis Vigil, Senior Vice President, Infrastructure Solutions Group Portfolio Management, Dell Technologies**
“Offering a comprehensive portfolio and collaborating with Broadcom is essential to our leadership in AI compute and networking solutions,” said Travis Vigil, senior vice president, Infrastructure Solutions Group Portfolio Management, Dell Technologies. “The Dell PowerEdge XE9680 server with the new Broadcom 400G NIC and Dell PowerSwitch ensures that our portfolio is optimized to provide end-to-end Ethernet AI fabrics, addressing the performance demands of AI solutions.”

**Trish Damkroger, Senior Vice President and Chief Product Officer for the HPC & AI Business Unit, Hewlett Packard Enterprise**
“We build some of the world’s most powerful and energy efficient supercomputers, which are imperative to enabling an advanced ecosystem for driving scientific discovery and innovation. We’re pleased to see Broadcom investing in Ethernet NIC that is based on open standards.”

**Charles Liang, President and CEO, Supermicro**
“With Broadcom’s new 400G Ethernet NIC’s extremely low power and support for passive copper cabling and linear drive optics, the BCM57608 fits perfectly with our Green Computing initiative,” said Charles Liang, president and CEO of Supermicro. “Broadcom’s outstanding execution has allowed us to bring the new adapters to production in record time, enabling us to capitalize on the strong growth we’re experiencing in the AI market.”




Source: Broadcom Inc.