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Microchip Expands Data Center Portfolio to Meet Evolving AI Infrastructure Demands

New connectivity, storage and acceleration solutions help address performance, security and scalability challenges across modern computing architectures

CHANDLER, Ariz., Oct. 12, 2026 (GLOBE NEWSWIRE) -- As AI workloads drive demand for more scalable and flexible data center architectures, organizations are looking for faster, more efficient ways to move, store and protect data. Microchip Technology (**Nasdaq: MCHP**) is helping to address these needs by expanding its portfolio of data center solutions with new innovations in PCIe® connectivity, NVMe® storage and acceleration that support high-performance computing infrastructure.

"Customers are looking for technology partners that can address multiple challenges across the infrastructure stack while helping simplify design and accelerate deployment," said Brian McCarson, corporate vice president and GM of Microchip's data center solutions business unit. "By continuing to expand our portfolio, we're providing the building blocks needed to create more efficient, secure and adaptable platforms for today's increasingly distributed and data-intensive computing environments."

Designed to bring PCIe Gen 6 connectivity to space- and power-constrained platforms, the [Switchtec™ PCIe 6.0](#) Low-Lane-Count (LLC) switch provides up to 64 PCIe Gen 6 lanes, 32 ports and flexible x2, x4, x8 and x16 bifurcation options. Integrated Direct Memory Access (DMA) supports efficient peer-to-peer data movement between connected devices while reducing host CPU involvement. Like Microchip's larger Switchtec Gen 6 devices, the LLC switch features PCIe Multicast and partitioning capabilities along with robust security through hardware root of trust and secure boot technologies. The new device delivers PCIe Gen 6 capabilities with a smaller, lower power footprint to extend support to a broader range of data center and intelligent edge applications.

To address the industry's requirements for secure, scalable and AI-optimized storage infrastructure, Microchip is updating its [Flashtec® SSD controller](#) portfolio with an enhanced version of the PCIe Gen 5 NVMe 5016 controller. Building on the controller's high-performance, power-optimized architecture, the updated device adds support for Commercial National Security Algorithm Suite (CNSA) 2.0 to help customers prepare for emerging post-quantum security requirements. Dual-port capability enables highly available storage architectures through redundant data paths and load balancing, while advanced virtualization, Quality of Service (QoS) management and flexible programmability help optimize performance. Together, these enhancements extend the Flashtec platform's ability to address evolving NAND technologies, high-capacity SSD designs and next-generation enterprise, hyperscale and AI deployments.

Microchip is also expanding the capabilities of its [Adaptec® SmartRAID](#) 4300 family of NVMe RAID storage accelerators with a series of enhancements designed to address practical operational needs. The updates are focused on strengthening storage security, minimizing downtime, expanding data protection and simplifying deployment across a wider range of environments. Self-encrypting drives (SEDs) with both local and remote key management, and RAID 6 and RAID 60 options have been added for increased resiliency and security. Broader platform compatibility is enabled through support for Linux®, Debian, Ubuntu® and Microsoft® Windows® 11 environments. Additional updates such as dynamic NVMe configuration for in-service management, persistent event logging and peer-to-peer rebuild support for greater CPU offload help reduce management overhead while minimizing service disruption. StorageCore API support further expands integration flexibility, enabling customers to incorporate SmartRAID management into third-party tools through in-band host applications as well as customized out-of-band BMC management frameworks.

The latest additions reflect the company's ongoing commitment to advancing the performance, availability and security of next-generation computing platforms. Visit the website to learn more about Microchip's full portfolio of [data center solutions](#).

Development Tools

Microchip's data center portfolio is supported by a suite of development and management tools, including ChipLink software for configuration, diagnostics, telemetry and debug of PCIe switches. Additional support includes software for device monitoring, configuration and firmware management, Flashtec NVMe controller development resources and Adaptec storage management software.

Pricing and Availability

Pricing and availability vary by device. Contact a Microchip [sales representative or authorized worldwide distributor](#) for more information.

Resources

High-res images available through Flickr or editorial contact (feel free to publish):
·Application image: <https://www.flickr.com/gp/microchiptechnology/3FpzU658s8>

About Microchip Technology:

Microchip Technology Inc. is a broadline supplier of semiconductors committed to making innovative design easier through total system solutions that address critical challenges at the intersection of emerging technologies and durable end markets. Its easy-to-use development tools and comprehensive product portfolio supports customers throughout the design process, from concept to completion. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support and delivers solutions across the industrial, automotive, consumer, aerospace and defense, communications and computing markets. For more information, visit the Microchip website at www.microchip.com.

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Editorial Contact:

Amber Liptai

480-792-5047

amber.liptai@microchip.com



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