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Broadcom First to Ship 7th Generation Fibre Channel

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Emulex® HBAs set a new standard in speed and low latency performance for mission-critical enterprise workloads and emerging applications

SAN JOSE, Calif., Dec. 06, 2018 (GLOBE NEWSWIRE) -- Broadcom Inc. (NASDAQ: AVGO) today announced the industry's first family of Gen 7 Fibre Channel Host Bus Adapters (HBAs) designed for accelerating today's mission-critical enterprise workloads and emerging mission critical applications including artificial intelligence-based business analytics.

Broadcom's Emulex® LPe35000-series HBAs are the first products released that comply with the FC-PI-7 standard*--the fastest single-lane serial transmission speed that features the hardened NVMe over Fibre Channel protocol (NVMe/FC), automatic buffer credit recovery, and more.

Purpose-built for All-flash and End-to-End NVMe Data Centers
By optimizing both the hardware and software stack, the LPe35000 delivers sub 10us roundtrip latency, 2x the bandwidth of Gen 6, and >5 million IOPS, resulting in double the application performance while using only half the CPU utilization of current solutions. Oracle Database testing shows that Emulex LPe35000-series HBAs deliver up to 55% better performance than competitive products**, providing enterprises with:

- Increased business efficiency through faster response times
- Lower application licensing costs and power consumption with the ability to process more transactions per server

Breakthrough Operational Efficiency
Emulex LPe35000-series HBAs, working in concert with Broadcom's Brocade directors and switches, will dramatically simplify how data center administrators deploy and manage their enterprise storage network. These new features solve two of today's most perplexing storage challenges: eliminating the need to reboot servers for firmware updates, and recognizing and eliminating network congestion bottlenecks to provide maximum server up-time.

Enhancements to the Most Reliable, Scalable, & Secure Storage Network
Emulex LPe35000-series HBAs include three industry exclusive enhancements:

- **Trunking**: aggregates physical ports to form a single, logical, extremely high-bandwidth 128GFC port

- **Dynamic Port Isolation:** full error diagnosis and resolution without impacting traffic on any other port on the HBA

- **Silicon Root of Trust**: firmware authentication is embedded into the hardware, delivering improved security against malicious firmware attacks

Built for the Future
As the first Fibre Channel HBA with support for the PCIe 4.0 specification, the LPe35000-series supports double the bandwidth per lane, providing significant I/O performance benefits for storage networking and AI applications. Performance upgrades are easy with hot-plug 64GFC optics kits. Lastly, Emulex HBAs support data center modernization efforts with concurrent NVMe/FC and traditional FC (SCSI FCP) support, allowing for a streamlined transition.

Available Today
The Emulex LPe35000-series is available today in single-port, dual-port, and quad-port models with 32GFC optics that are upgradable to 64GFC. The Emulex XE601 Gen 7 Fibre Channel controller is available in 64GFC and 32GFC configurations.

Dell EMC is the first server vendor to offer Gen 7 FC connectivity via select Dell EMC PowerEdge servers.

"Today's announcement validates Broadcom's continued investment in Fibre Channel solutions required for the modern data center," said   Jeff Hoogenboom, general manager, Emulex Connectivity Division, Broadcom. "NVMe-based data centers will require their storage network to deliver ultra-low latency that is consistent and predictable as applications and data continue to scale. Fibre Channel and Emulex's Gen 7 HBA's are purpose-built for the NVMe data center."

"Dell EMC and Broadcom have a long history of being first-to-market with IT infrastructure technologies that modernize data centers," said Ravi Pendekanti, senior vice president, product management and marketing, Dell EMC Server & Infrastructure Solutions. "As first to offer these Gen 7 Fibre Channel HBAs, we enable our customers to improve workload performance for latency-sensitive applications and benefit from greater return on their investment in PowerEdge servers."

"The Fibre Channel market is experiencing renewed growth, with HBA revenues currently on track for a solid annual increase. Furthermore, 32G Fibre Channel customer adoption has been faster than that of 16G," said Seamus Crehan, president of Crehan Research. "Bolstered by the Emulex LPe35000-series Gen 7 HBAs, speeds of 32G-and-higher are expected to comprise over half of total Fibre Channel market revenues by 2020."

"We are pleased to see this implementation of the latest generation of Fibre Channel technology, frequently known as Gen 7," said Dennis Martin, senior analyst at Principled Technologies (which recently acquired Demartek). "In a synthetic performance benchmark, we observed more than 5 million IOPS across two ports of the LPe35002 Fibre Channel adapter and using analyzers, approximately 1.5 microseconds of latency across this adapter. Broadcom has raised the standard for the next generation of Fibre Channel adapters."

"Fibre Channel continues to thrive in the data center due to continuous innovation and a robust roadmap," said Jack Rondoni, senior vice president and general manager, Brocade Storage Networking division at Broadcom. "The launch of our company's Emulex Gen 7 Fibre Channel adapters represents important industry and technology milestones. When combined with our recently launched Brocade automation capabilities, Broadcom's commitment to delivering innovation in the Fibre Channel market is unmatched."

For more information about Broadcom's Emulex Gen 7 Fibre Channel solutions, visit the Fibre Channel Host Bus Adapters page and the Fibre Channel Storage I/O Controllers page.

* When upgraded with 64GFC optics
** Emulex LPe35002 vs. QLogic QLE2742

About Broadcom Inc.
Broadcom Inc. (NASDAQ: AVGO) 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 and mainframe software focused on automation, monitoring and security, smartphone components, telecoms and factory automation. For more information, go to www.broadcom.com.

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