

Emulex delivers optimized I/O connectivity for Dell 13th generation PowerEdge servers

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Supporting enterprise, Cloud and next generation workloads. Emulex I/O solutions deliver performance, efficiency, and scalability for Big Data, VDI, unified communication and network functions virtualization



Adam Winkelmann, VP of International Operations, Emulex, at NetEvents EMEA Press and Analyst Summit, Algarve, Portugal

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Emulex Corporation, a leader in network connectivity, monitoring and management, announced 10Gb Ethernet (10GbE) and Gen 5 (16Gb) Fibre Channel (FC) connectivity support for the new Dell PowerEdge™ 13th generation servers based on the new Intel® Xeon® processor E5-2600/1600 v3 product families. Consistent with Dell's commitment to optimize the enterprise, Emulex I/O connectivity solutions for PowerEdge 13th generation servers are designed to accelerate applications, increase data center efficiency and improve bandwidth for enterprise workloads such as virtual desktop infrastructure (VDI), big data analytics, unified communication and collaboration (UC&C), database management and emerging compute architectures such as network functions virtualization (NFV) for telco and OpenStack or OpenCompute-based cloud computing.

“Emulex 10GbE CNAs and Gen 5 FC HBAs are optimized for Dell PowerEdge servers and designed to address the demands of next generation workload demands, providing scale to support hybrid cloud infrastructures and heavily virtualized environments,” said Shaun Walsh, senior vice president of marketing, Emulex. “Emulex and Dell have worked closely together to simplify management with full iDRAC integration, lower lifetime operational expenditure (OPEX) with reduced power and improved CPU efficiency, and enable a seamless migration path for customers upgrading to the new Dell PowerEdge 13th generation servers.”

“Emulex provides unique virtualization connectivity solutions that are ideal for Dell PowerEdge customers who want to improve performance, mitigate risk, and optimize their enterprise to better serve their customers,” said Brian Payne, executive director of server solutions, Dell. “With the ability to accelerate applications, increase data center efficiency and improve bandwidth for enterprise workloads, Emulex Ethernet and Fibre Channel technology matches our customers' global enterprise solution needs.”

EmulexOneConnect®OCe14000 Series of Converged Network Adapters (CNAs) and Emulex LightPulse® Gen 5 FC HBAs are designed to deliver the following benefits for Dell PowerEdge 13th generation server solutions:

- **Accelerated Application Performance:** Emulex OneConnect 10GbE CNAs now support RDMA over Converged Ethernet (RoCE) which accelerates applications such as Microsoft SQL Server when

using Windows Server SMB Direct, delivering application and storage acceleration through faster I/O operations. The Emulex Gen 5 FC HBAs also improve application performance with up to 1.2 million I/O operations per second (IOPS)¹, which is 20 percent more than other Gen 5 FC HBAs, and up to 3x faster for Oracle databases and 2x faster for Microsoft SQL Server deployments.

- **Improved Virtualization Agility and Hybrid Cloud Networking:** Emulex OneConnect 10GbECNAs include Emulex Virtual Network Exceleration™ (VNeX) technology, providing Dell customers with the industry's only hardware offload support for overlay networks. Overlay networks are designed to simplify virtual machine (VM) mobility and network scalability while optimizing server performance when compared to adapters that lack offload capability. Emulex VNeX technology allows customers to maintain CPU utilization thresholds and reduce CPU usage fluctuations while adding more workloads to each server in virtual networking environments.

- **Increased Workload Scalability and Optimized Bandwidth Partitioning:** Emulex OneConnect 10GbE CNAs deliver up to a 4x boost in small packet network performance², vs. previous generation adapters, which is critical for scaling transaction-heavy and clustered applications such as Web-scale and messaging. Emulex OneConnect 10GbE CNAs include Dell NPAR technology support, which is ideal for virtualized server environments because bandwidth allocation can be optimized to support I/O intensive applications, virtualization services and server management functions. Dell customers can configure up to 16 NIC functions (partitions) per adapter. Alternatively, two of the functions (partitions) on each port can be configured with one iSCSI and one FCoE storage function (partition), allowing for more flexible storage connectivity using concurrent iSCSI and FCoE hardware offloads.

- **Simplified and Flexible System Management:** All Emulex 10GbE CNAs and Gen 5 FC HBAs are compatible with the integrated Dell Remote Access Controller (iDRAC™) with Lifecycle Controller systems management solution. iDRAC8 with Lifecycle Controller technology, allows administrators to deploy, monitor, manage, configure, update, troubleshoot and remediate Dell servers from any location, and without the use of agents.

¹. Demartek Emulex LPe16000B 16Gb Fibre Channel HBA Evaluation, October 2012

². Based on IT Brand Pulse OCe14000 Performance Test Report, July 2014