CHELSIO T7 DPU PROMOTES BROAD ETHERNET STORAGE NETWORKING, ENABLING HIGHLY FLEXIBLE, OPEX-OPTIMIZED ENTERPRISE AND CLOUD IMPLEMENTATIONS

Showcases Multiple T7-Enabled Storage Networking Solutions for NVMe/TCP, NVMe-oF, and iSCSI at Storage Developer Conference 2022

STORAGE DEVELOPER CONFERENCE/SUNNYVALE, CA – September 13, 2022 – Chelsio Communications, Inc., a leading provider of high performance (1/10/25/40/50/100/200/400Gb) Ethernet Unified Wire Adapters and ASICs for storage networking, virtualized enterprise datacenters, cloud service installations, and cluster computing environments, today announced a set of storage demonstrations and performance benchmark results which showcase how T7 DPU enables optimal application performance and return-on-investment (ROI) for NVMe-TCP, NVMe-oF (RDMA) and iSCSI technologies at the annual Storage Developer Conference, which will be on September 12-15, 2022.

A highlight will be the demonstration of NVMe/TCP with Chelsio TCP/IP Offload Engine (TOE) using the NVMe protocol data unit (PDU) interface for highly efficient, low-latency access to NVMe SSD storage using the T7 DPU Emulation Platform. The T7 DPU Emulation Platform supports a 5U chassis that connects to a server host via a PCIe ribbon cable. It includes a mapping of all T7 logic gates, supports the Linux boot process for running applications, and the host software of T7 predecessors, T5 & T6, as-is, thus demonstrating the ability of customers to leverage prior software investment. T7 Emulation Platform delivers an aggregate of 40 Gigabit Ethernet (40GbE) bandwidth via 4x10GbE or 2x40GbE connectivity options. The T7 Emulation Platform for software development is available to Chelsio T7 Early Access customers.

"The extreme performance requirements of modern applications require exceptional performance from the underlying storage networking for users to realize the best possible value of their data centers and the data they hold," stated Kianoosh Naghshineh, CEO at Chelsio Communications. "T7 DPU provides such access using a variety of offloaded storage protocols including T7-powered NVMe/TCP, NVMe-oF and iSCSI to meet the needs of innovative applications."

"Continued growth of cloud and edge workloads are placing more demand on data infrastructure resources," said Greg Schulz, Sr. Analyst StorageIO. "Fast applications need fast I/O and compute including server, storage, and I/O network offloads to boost not only efficiency, also productivity effectiveness. TOEs are a great solution to offload core server compute freeing up those resources for other productive tasks like the value benefit GPUs provide in freeing up compute cycles through offloading graphics and AI/ML workloads."

During the Storage Developer Conference (September 12-15, 2022), Chelsio will demonstrate the following technologies that illustrate how T7 DPU solutions offering high-speed Ethernet storage networking complement modern applications and storage architectures:

- NVMe/TCP with Chelsio TOE using the protocol data unit (PDU) interface for highly efficient, low-latency access to NVMe SSD storage.
- NVMe Over Fabrics (RDMA)-based network access with industry leading high-performance and low latency.
- iSCSI Protocol Offload-based access to flash storage with extremely high throughput and IOPs.
- Memory-free Server Offload functions optimized for datacenter networking applications.
- T6 legacy mode software running on T7 for iSCSI, iWARP, TOE, NIC, NVMe/TCP.

In addition, Chelsio will be participating in a Birds of a Feather (BoF) session entitled "Best Practices for NVMe/TCP Deployment". NVMe over TCP has emerged to provide a more powerful, and compute resource friendly NVMe-oF technology deployment option. Not only does NVMe over TCP help with lower deployment costs and reducing design complexity, it also enables higher performance with lower latency. In essence, NVMe over TCP extends NVMe across the entire data center (from on-prem core to edge to cloud) using the simple, standard, and efficient well-known TCP/IP fabric networks. The BoF will be moderated by Greg Schulz, Independent Industry Analyst & Author, StorageIO™ and will include review of NVMe/TCP performance results using Chelsio T6 Unified Wire TCP Offload Engine (TOE) to illustrate the benefits in performance and efficiency of NVMe/TCP fabrics, opening the way to unprecedented storage performance and scale. The session is scheduled for Tuesday, September 13th, 8-9 PM.

Availability

T7 DPU ASICs and the first two adapter SKUs will be in production in 1Q23. T7 DPU emulation platforms for software development are available to early access customers now. T7 reference design kit is also available now. Please contact Chelsio for more information.

Additional Resources

[T7 NVMe PDU Interface Offload Video](#)
[T7 NVMe-oF (RDMA) Offload Video](#)
[T7 Overview Video](#)
[T7 Product Brief](#)

About Chelsio Communications

Chelsio is a recognized leader in high performance (1/10/25/40/50/100/200/400Gb) Ethernet adapters for networking and storage within virtualized enterprise datacenters, public and private hyperscale clouds, and cluster computing environments. With a clear emphasis on performance and delivering the only robust offload solution, as opposed to simple speeds and feeds, Chelsio has set itself apart from the competition. The Chelsio Unified Wire fully offloads

all protocol traffic, providing no-compromise performance with high packet processing capacity, sub-microsecond hardware latency and high bandwidth. Visit the company at www.chelsio.com and follow the company on Twitter and Facebook.

<center>###</center>