CHELSIO DEMONSTRATED Soft-iWARP at NVMe™ Developer Days

Industry's First Demonstration of open source iWARP protocol suite using 100 Gigabit networking

SUNNYVALE, Calif. – March 19, 2019 – Chelsio Communications, Inc., a leading provider of high performance (1Gb/10Gb/25Gb/40Gb/50Gb/100Gb) Ethernet Unified Wire adapters and ASICs for storage networking, virtualized enterprise datacenters, cloud service installations, and cluster computing environments, today announced the showcasing of its latest T6 based 100 GbE L2 NIC adapters with soft-iWARP at NVMe Developer Days event in Fremont, California. The results show that Chelsio's T6 with soft-iWARP delivers line-rate throughput and more than 1 Million IOPS at 4K I/O size. In addition, with only 12 µs delta latency between remote and local storage, Chelsio's T6 based 100GbE L2 NIC with Soft-iWARP is shown to be the best-in-breed for providing cost-effective, scalable storage connectivity over industry-standard Ethernet infrastructure.

"iWARP is the perfect cost-effective, high-performance, easily managed, interoperable solution that enables today's datacenters to non-disruptively deploy RDMA enabled Ethernet networks, with management under a single unified network infrastructure," said Kianoosh Naghshineh, CEO, Chelsio Communications. "Using the flexibility, performance and cost-effectiveness built into soft-iWARP end-to-end Ethernet RDMA networking, datacenters can now leverage the ubiquity of a software-based iWARP solution."

The soft-iWARP open source software provides enterprise and cloud datacenters with the following key advantages:

- Any L2 NIC can now run the iWARP protocol and leverage the high performance of Ethernet RDMA networking.
- It provides a simple path for transition of RDMA applications to the cloud platform.
- It enables client/initiator side applications like iSER, NVMe-oF, NFSRDMA, LustreRDMA etc. to cost-effectively connect to hardware offload-based iWARP versions on the target side.
- It supports the ability to work with any type of switch infrastructure, including non-DCBX switches, enabling a decoupled server and switch upgrade cycle.

Additional Resources

Soft-iWARP Performance with Chelsio 100GbE Technical Brief

NVMe Developer Days Conference 2019 Presentation

About Soft-iWARP

Soft-iWARP is an open source software implementation of the iWARP protocol suite. It comprises of two main building blocks: a kernel module, which implements the iWARP protocols on top of TCP kernel sockets, and a user level library. Soft-iWARP integrates with the industry standard RDMA host stack and thus exports the OpenFabrics RDMA API to both user space and kernel space applications. Due to close integration with the Linux kernel socket layer, Soft-iWARP allows for efficient data transfer operations and since the implementation conforms to the iWARP protocol specification, it is wire compatible with any peer network adapter (RNIC) implementing iWARP in hardware. This software is available under a choice of GPL-2.0 or BSD-3 license.

About Chelsio Communications

Chelsio is a recognized leader in high performance (1Gb/10Gb/25Gb/40Gb/50Gb/100Gb) 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.

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