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**Media Contact:**  
[media@chelsio.com](mailto:media@chelsio.com)  
Chelsio Communications  
1-408-962-3677

## **CHELSIO DEMONSTRATES LEADING NVMe OVER FABRICS (NVMe-oF) JBOF PERFORMANCE USING 100GbE iWARP RDMA**

**Showcases the Reach of NVMe Drives Over High-Performance Ethernet Networking, Providing Foundation for Improved Storage Performance and Lower Total Cost of Ownership**

**SUNNYVALE, CA – January 29, 2018** – 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 a demonstration of NVM Express (NVMe) over Fabrics JBOF using Chelsio T6 100GbE iWARP RDMA adapters and Samsung Electronics PM1725 NVMe solid state drives (SSDs) known for its performance and reliability. The demonstration is based on software conforming to the specification of NVMe over RDMA Fabrics as defined by the NVM Express, Inc.

NVMe provides a standards-based approach for PCI Express (PCIe) SSD access that significantly improves performance by reducing latency and streamlining the command set, while providing support for security and end-to-end data protection. NVMe over Fabrics defines an efficient mechanism to utilize these devices in large scale storage deployments and provides investment protection by allowing the latest in innovations and advances in low latency SSD flash to be used over proven Ethernet iWARP (RDMA/TCP) networking. This enables the NVMe storage devices to be shared, pooled and managed more effectively. The Chelsio demonstration is aimed at providing a foundation for lower latency and increased performance, while providing improved iWARP integration for flash-based storage.



With its ultra-low-latency T6 100GbE iWARP RDMA solution, which can reliably operate with Ethernet PAUSE frames disabled, Chelsio demonstrates that accessing flash remotely does not need to come at the expense of performance, scalability or error recovery. Chelsio T6 1/10/25/40/50/100GbE Unified Wire offering enables a seamless migration path to 200/400GbE in the future, while offering the flexibility to fully leverage existing software investments.

Key benefits of Chelsio T6 NVMe-oF solution are:

- Broad Range of Ethernet connectivity speeds – 1/10/25/40/50/100GbE to support business-critical enterprise and cloud applications and deliver scalability to drive business growth.
- Ease of Use and Deployment – Chelsio T6 iWARP RDMA adapters work with any legacy Ethernet switch, thereby enabling incremental NVMe-oF installations without requiring a concurrent forklift upgrade of the switch infrastructure, or the entire datacenter.
- Optimal Return on Investment (ROI) – Chelsio T6 adapter’s ability to work with any non-DCBX switch, allows use of the most cost effective new or existing switch infrastructure with the least amount of support.
- Investment Protection – Industry's only network adapter offering that delivers storage OEM customers, technology choice and investment protection with concurrent hardware offload support for NVMe over Fabrics/iWARP, iSCSI, iSER and FCoE protocols.
- Standards Compliant – Chelsio T6 NVMe-oF/iWARP solutions are compliant with the currently released version of the NVMe over RDMA Fabrics specification.

By delivering line-rate 93 Gbps throughput for both READ and WRITE operations, 100GbE iWARP can enable industry-leading NVMe over Fabrics high-performance solutions. Using iWARP, storage system OEMs and device vendors can also easily add fabric connectivity to any existing NVMe device.



“We are pleased to announce the development of the next generation flash-optimized enterprise storage using Samsung’s advanced SSDs. Our 100GbE iWARP RDMA delivers ‘no compromise’ efficiency for NVMe Fabrics and flash applications,” said Kianoosh Naghshineh, CEO at Chelsio Communications. “Customers acquire flash storage to share it across multiple applications using the most efficient networking available to maximize ROI. iWARP-enabled storage solutions will be a critical tool in meeting these business goals.”

“Maximizing the efficiency of servers is a major priority for datacenter architects,” said Ilker Cebeli, Senior Director, Product Planning, Samsung Semiconductor, Inc. “The Chelsio demonstration provides yet another example of how our high-performance NVMe solid-state storage can help datacenters get the most out of their infrastructure assets, and drive down latency at the same time.”

### **Additional Resources**

High Performance NVMe Over 100G iWARP RDMA [Technical Brief](#)

100G iSCSI Offload Performance [Technical Brief](#)

### **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](http://www.chelsio.com), and follow the company on [Twitter](#) and [Facebook](#).

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