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CHELSIO ANNOUNCES 10/25/40/50/100 GIGABIT ETHERNET SWITCHLESS RING BACKBONE

Enables Dramatically Improved ROI and Extreme Performance for Enterprise and Cloud Deployments

SUNNYVALE, CA – November 22, 2017 – 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 availability of industry leading Unified Wire 10, 25, 40, 50, and 100Gb/s Terminator 5/6 (T5/6) network adapters with integrated Switchless Ring Backbone capable of up to 2x100Gbps full-duplex switching operations.

The T5/6 ASIC-based integrated Switchless Ring Backbone is supported even when the adapter is simultaneously operating as a 100Gbps offload NIC. It can be configured as a backbone to connect a set of servers at desired 1/10/25/40/50/100Gb link speeds. This is achieved concurrently along with the adapters supporting TCP/UDP/iSCSI/iSER/iWARP/NVMe-oF/SMBD and in-line TLS/SSL/DTLS Crypto network traffic.

The T5/T6 integrated Switchless Ring Backbone has a full suite of L2-L7 features including ACL with support for L2 Ethernet switching, L3 routing, NAT, TCP Proxy, and iSCSI proxy. This functionality is configurable through a CLI and provides APIs to integrate with a third-party management tools.

Using the T5/T6 Switchless Ring Backbone functionality to deploy Microsoft Storage Spaces Direct (S2D), for example, enables a fast path implementation. Using a dual-port T6 based 100G adapter (T62100-LP-CR) in each of the S2D nodes, each node may be directly connected to its neighboring node. This enables a backbone 100G network to configure and use a cluster solution like S2D without requiring any discrete external 100GbE network switch and its requisite cost and complexity, and significantly improves the application and storage performance.

T5/6 Switchless Ring Backbone feature is currently shipping as an integrated component of Chelsio T5/6 Unified Wire adapters and can be configured using Chelsio driver for Windows Server 2016 (now), Linux (December) and FreeBSD (March) platforms for following applications:

- Microsoft Storage Spaces Direct (S2D)
- NVMe over Fabrics
- SDN/NFV
- Ethernet-based storage including iSCSI and Network-Attached Storage (NAS)
- QoS and Traffic Management
- OEM-developed unified file/block storage solutions

"The release of integrated Unified Wire Switchless Ring Backbone capabilities represents a milestone of our vision of pervasive highly efficient and high-ROI deployments of 100GbE across enterprise and cloud datacenters," said Kianoosh Naghshineh, CEO at Chelsio Communications. "The ability to enable communication among server and storage components without requiring a switch infrastructure, enables tremendous price/performance gains in most installations."

"Highly efficient networking solutions play a key role in enabling convergence of server, storage and software-defined storage applications across cloud and legacy datacenters," said Greg Schulz, Founder and Senior Analyst, Server StorageIO. "Chelsio is bringing to market a

cost-effective solution that today can address common datacenter challenges, including reducing complexity and cost of 100GbE network infrastructure for software-defined data and other applications that have the need for speed.

More Details

T5/6 Switchless Backbone 100GbE [Technical Brief](#)

Configuring S2D with Switchless Ring Backbone [Quick Start Guide](#)

Chelsio Switchless Ring Backbone Overview [Video](#)

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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