ACTIVE DEVELOPMENT OF iWARP RDMA STANDARDS CONTINUES

RFC 7306, approved by the Internet Engineering Task Force (IETF), advances the open iWARP standard for Remote Direct Memory Access (RDMA).

SUNNYVALE, Calif., (Sept. 30, 2014) — Industry leader Chelsio Communications announced today that the IETF has approved RFC 7306, RDMA Protocol Extensions, the result of a cooperative effort to further develop the iWARP RDMA standard, enabling more widespread adoption of iWARP to achieve low latency and high performance over Ethernet.

The collaboration among industry leaders within the working group for RFC 7306, and their ongoing commitment to standards development demonstrate that iWARP continues to be a robust, competitive solution for RDMA requirements over Ethernet networks.

IETF RFC 7306 provides two extensions to iWARP, atomic operations and immediate data messages. Atomic operations can be performed on remote memory locations, enhancing the usability of iWARP in distributed shared-memory environments. Immediate data messages allow the upper-layer protocols (ULP) at the sender to provide a small amount of data to be delivered as part of the completion of the RDMA operation. This enhancement allows iWARP to support the RDMA write with immediate message that is found in other RDMA transport protocols. Aligning the various RDMA transport protocols with these enhancements simplifies applications and ULPs that support multiple RDMA transports.

iWARP RDMA is an open IETF standard that enables Ethernet networks to achieve high bandwidth, low latency and high efficiency network communications. These attributes are increasingly important requirements for many applications, such as storage, data center, cloud and big data. Native system software support for iWARP RDMA as in Microsoft Windows Server 2012 with SMB Direct makes enabling RDMA for storage and virtual machine migration easy for IT administrators, with no network reconfiguration required, while maintaining the standard SMB application interface.

“We are keen to collaborate on the ongoing standards development for RDMA,” said Ásgeir Eiríksson, CTO, Chelsio Communications. “The latest RFC demonstrates our commitment to iWARP as the superior solution for RDMA over Ethernet.”
Intel also contributed to the latest standard. Steve Schultz, Director of Product Marketing, Intel Networking Division said, “We continue to support iWARP with our customers as a reliable and scalable solution for high performance RDMA over Ethernet networks. Further development to the RDMA standard makes it easier for customers to deploy such solutions over their existing and ubiquitous Ethernet infrastructure.”

The key advantage of iWARP lies in its elegant simplicity, with a proven foundation and lower total cost of ownership. Because iWARP runs over standard TCP/IP, it can be deployed and routed across Ethernet networks with little to no administration, as opposed to other RDMA transports, which require specialized infrastructure, management tools, and administrative expertise.

As summarized by Åsgeir Eiriksson, CTO, Chelsio Communications, “The latest IETF standard development validates that iWARP continues to be the preferred solution for RDMA over Ethernet, while remaining at the forefront of lower total cost of ownership.”

iWARP RDMA is available at 40Gbps with Chelsio Unified Wire Adapters, based upon the fifth generation of its high performance Terminator (T5) ASIC, designed for data, storage and high performance clustering applications.

About Chelsio Communications, Inc.
Chelsio Communications is leading the convergence of networking, storage and clustering interconnects and I/O virtualization with its robust, high-performance and proven Unified Wire technology. Featuring a highly scalable and programmable architecture, Chelsio is shipping multi-port 10 Gigabit Ethernet (10GbE) and 40GbE adapter cards, delivering the low latency and superior throughput required for high-performance compute and storage applications. For more information, visit the company online at www.chelsio.com.

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