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CHELSIO AND RYUSSI DEMONSTRATE END-TO-END iWARP RDMA BETWEEN WINDOWS 10 ENTERPRISE AND MoSMB SMB3 SERVER

Demonstration Highlights iWARP CPU-Efficiency and Application Acceleration Benefits for Windows 10 Enterprise Media and Entertainment (M&E) Applications

SUNNYVALE, Calif. – February 12, 2020 – 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, and Ryussi America, Inc, a Storage & Systems Product Development and Consulting company, today announced the results of the performance of Chelsio Terminator 6 (T6) iWARP RDMA adapters with Windows 10 Enterprise Client RDMA feature enabling high-speed access to the Ryussi MoSMB SMB3 server using SMB Direct. Windows 10 Client, Enterprise edition includes an inbox driver for Chelsio iWARP RDMA enabled 1/10/25/40/50/100 GbE Unified Wire adapters.

The results showcase how Chelsio's iWARP RDMA enabled NIC delivers ground breaking performance of ~93 Gbps over SMB protocol using SMB Direct-enabled MoSMB Server. The performance is achieved using standard Ethernet infrastructure. The results also demonstrate that the combined solution delivers 84 Read FPS and 91 Write FPS for 4K frames for single client, making it well suited for demanding 4K media workflows like rendering, animation, editing, post-production, color correction, VFX or virtual reality.

The digital film is rapidly evolving to 4K and beyond. As the Media & Entertainment industry moves towards higher resolution and multi-camera mode of production, the need for high performance as well as high capacity storage devices is increasing like never before. This



pressing need for fast and scalable storage is seen across the entire lifecycle of digital content Capture, Creation, Editing, Archiving and Distribution.

SMB Direct, or SMB (Server Message Block) over RDMA (Remote Data Memory Access), is a networking offload technology which makes data transfers between clients and file servers faster and more efficient without involving the host's CPU. It achieves this by using techniques such as Zero Copy, Kernel Bypass and CPU Offload. This results in increased throughput, reduced latency, and the CPU power is freed up for time-critical performance-intensive media workloads like studio editing, rendering, post-production and broadcast while working on large unstructured datasets.

“Chelsio is pleased to collaborate with Ryussi to demonstrate high-performance 1/10/25/40/50/100 GbE iWARP Ethernet RDMA solutions for Windows 10 Enterprise M&E deployments,” said Kianoosh Naghshineh, CEO, Chelsio Communications. “Chelsio iWARP RDMA offering can now enable the full benefits of RDMA networking to be delivered for large-scale, end-to-end Windows 10 workstation to MoSMB Server 4K media applications via using the same high-performance wire protocol on both ends of the wire.”

“The data intensive nature of M&E workflows propelled by higher resolutions and faster frame rates is driving an explosive growth of collaborative, high performance storage solutions”, said Sandeep Bhambani, CEO of Ryussi. He adds “Ryussi is happy to team up with Chelsio and Microsoft to showcase a powerful solution for today's demanding 4K and higher M&E workloads. MoSMB supports RDMA natively and combined with Windows 10 workstation and Chelsio's 100GbE iWARP RDMA networking solution, makes it the preferred choice of SMB server for high throughput, low latency M&E production and post-production workflows.”

“iWARP enabled SMB Direct is enabling server storage I/O technology to boost productivity for both Windows, as well as Linux based systems,” said Greg Schulz, Sr. Analyst Server StorageIO. “Chelsio, along with Ryussi, have demonstrated how iWARP enabled SMB Direct can boost



performance, along with productivity for Media & Entertainment workflows; after all, fast networks need fast protocols and drivers.”

Additional Resources

iWARP/RDMA Benefits for Media and Entertainment Workflows [Technical Brief](#).

About iWARP

Chelsio’s T6 Adapters offer a high performance, robust implementation of iWARP RDMA over 1/10/25/40/50/100Gb Ethernet Unified Wire adapters, delivering end-to-end RDMA latency that is comparable to InfiniBand, using a standard Ethernet infrastructure. It is a plug-and-play, highly reliable and mature protocol that enables direct data placement, CPU savings, and RDMA functionality over TCP/IP and legacy Ethernet switches and Internet with no performance penalties. Chelsio iWARP RDMA is in production today and drivers are in-boxed. In addition, Microsoft’s support of iWARP RDMA protocol since Windows Server 2012-R2 release, has allowed for years of testing for a very robust, tested, deployment with iWARP.

About MoSMB

MoSMB (SMB with Mojo) is Ryussi’s proprietary ANSI C SMB2/SMB3 server implementation on Linux. MoSMB supports RDMA natively and its high performance, high scalability and high availability makes it the SMB file server of choice for workflows across the entire lifecycle of digital content including Capture, Creation, Editing, Archiving and Distribution. MoSMB is purpose built for high throughput, low latency M&E workflows in heterogeneous environments that include Windows, macOS and Linux SMB clients. MoSMB can be deployed on any POSIX file system and S3 compatible object storage. More information about MoSMB is available at www.mosmb.com, [Twitter MoSMB](#).

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](#).

About Ryussi

Founded in 2012 by Storage and Networking veterans, Ryussi specializes in Storage and Systems Software. Ryussi is focused on Product Development and Consulting and its clientele include Fortune 100 companies and several startups. Over the years, it has worked on several challenging problems in the areas of Storage, Networking, Cloud, Virtualization, SDN and Big Data Analytics. More information about Ryussi is available at www.ryussi.com, [LinkedIn Ryussi](#), [Twitter Ryussi](#).

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