

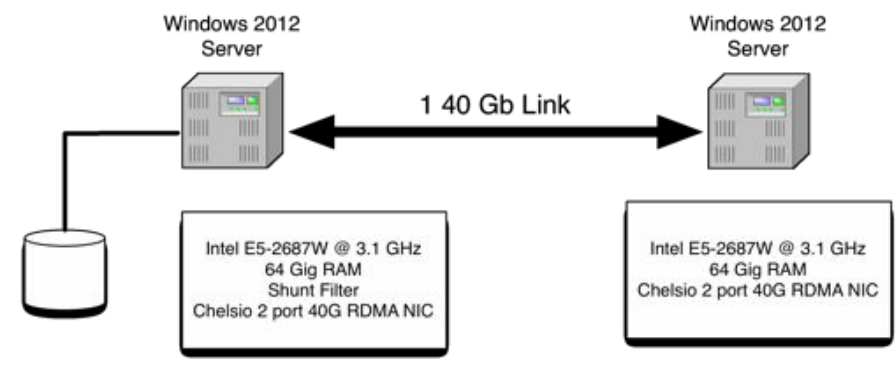


Delivering superior performance with SMB over Ethernet on Windows Server 2012

Chelsio T5 Unified Wire Network Adapters

Using Chelsio T5 Unified Wire Network Adapters with industry leading RDMA over Ethernet (iWARP) Chelsio enables Microsoft Windows Server 2012 to deliver superior performance rivaling that of competing technologies. Using a Chelsio 2 port Unified Wire Network adapter, Windows Server 2012 can move data in excess of 4 Gigabytes per second with very little CPU intervention.

The Topology



Network configuration: Two Microsoft Windows Server 2012 machines connected back to back using a pair of Chelsio 2-port adapters. One 40G port is used. The port on the server is configured as 102.50.50.x/24.

Software configuration: Each server is running a copy of Microsoft Windows Server 2012 Build 9200. The benchmarking tool in use is sqlio from Microsoft. This tool is available from go.microsoft.com. The Chelsio network driver version used is 4.4.0.0.

I/O benchmarking configuration: Sqlio is used to determine the I/O capacity of a configuration. For this demonstration, we use of blocksize of 512 Kbytes. Buffering is set to none, and the I/O access pattern is sequential.

Server configuration: For this demonstration a shunt filter is employed to show the capabilities of the T5 chip.

Block Size	IOs per second	Transfer Rate Gb/sec	% CPU on server
512k	8002	36	3%