

### ABOUT ATTO TECHNOLOGY, INC.

For over 30 years, ATTO Technology, Inc. has been a global leader across the IT and media & entertainment markets, specializing in storage and network connectivity and infrastructure solutions for the most data-intensive computing environments. ATTO works with partners to deliver end-to-end solutions to better store, manage and deliver data. Working as an extension of customer's design teams, ATTO manufactures host bus adapters, network adapters, storage controllers, Thunderbolt™ adapters, and software. ATTO solutions provide a high level of connectivity to all storage interfaces, including Fibre Channel, SAS/SATA, iSCSI, Ethernet, NVMe, NVMe over Fabrics and Thunderbolt. ATTO is the Power Behind the Storage.

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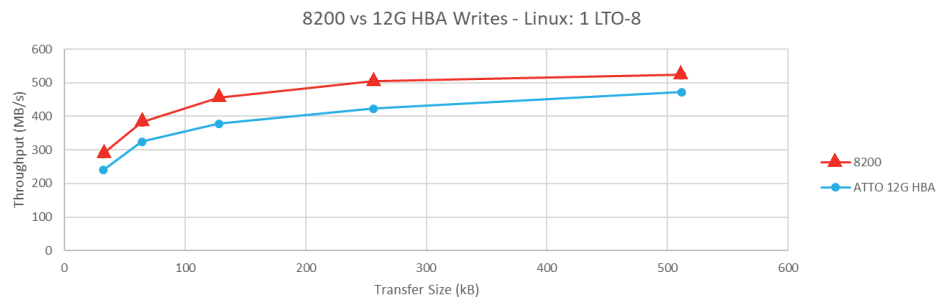
## SpeedWrite™ Improves SAS Tape Performance by 20%

FASTER PERFORMANCE WITH XSTREAMCORE® VERSUS DIRECT CONNECT SAS HBAs

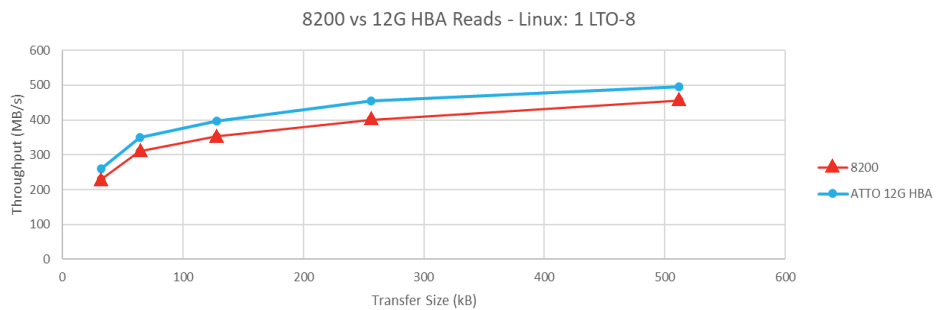
### ATTO SpeedWrite™ Boosts Tape Write Performance

When backing up data, write speed is the most important metric to an organization. ATTO SpeedWrite™ keeps paths between host & ATTO XstreamCORE® storage controller filled with data to significantly boost write performance to tape. Multiple hosts can each be talking to different tape drives and all hosts benefit from SpeedWrite's early response mechanism. SpeedWrite boosts tape performance by up to 20% over a direct connect SAS HBA connection to tape drives. SpeedWrite gives a successful response to the host in parallel with sending commands to the drive. Hosts can send the next command down to XstreamCORE, making the system look like tape devices can handle a queue depth of two.

### Uncompressed write performance is improved with XstreamCORE converting between Ethernet and SAS



XstreamCORE ET 8200 writes are up to 20% higher over Ethernet than connecting directly to a SAS tape drive with a SAS HBA



XstreamCORE ET 8200 reads are similar in performance experienced over Ethernet when SAS tape drives are connected to SAS HBAs

### ATTO XstreamCORE provides fast performance connecting Fibre Channel, iSCSI or iSER to SAS tape drives

ATTO XstreamCORE storage controllers connect up to 16 SAS LTO tape drives to a 16Gb or 32Gb Fibre Channel or 40Gb Ethernet fabric. Connectivity via multiple ports allows up to 6400 MB/s of throughput when connecting with Fibre Channel, up to 6000 MB/s when connecting with iSCSI Extensions for RDMA (iSER) or up to 2500 MB/s of throughput when connecting with ATTO hardware accelerated iSCSI. Simply connect SAS drives behind XstreamCORE to take advantage of the speed and versatility of standard off the shelf SAS drives without the expense of Fibre Channel or Ethernet tape drives.

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### ATTO Hardware Accelerated iSCSI technology

ATTO engineered the TCP/IP stack into the xCORE Acceleration Processor to improve iSCSI performance by accelerating all SCSI, iSCSI and TCP commands in hardware without the need for CPU intervention or context switching. Built from the ground up to enable high performance not experienced by software iSCSI implementations, ATTO's implementation of iSCSI is fully in hardware and is not an offload engine. ATTO hardware accelerated iSCSI eliminates any burden to the CPU and provides an extremely fast connection between iSCSI targets and initiators.



Compressed traffic benefits from SpeedWrite while uncompressed traffic hit line rate on SAS tape drives. A total of 6000 MB/s of throughput is available with the 8200 using iSER

### About ATTO XstreamCORE storage controllers

ATTO XstreamCORE is a stand alone, accelerated protocol bridging appliance which connects any external SAS device, such as a JBOD of HDDs or SSDs, a RAID array or external tape devices and present them on a SAN fabric such as Fibre Channel or iSCSI. These appliances offer extremely low latency as a result of ATTO xCORE hardware acceleration and intelligent Bridging Architecture™, resulting in only 2-4 microseconds of added latency.