

OVERVIEW

ATTO Technology, Inc. FastFrame™ network interface cards (NICs) provide users all the benefits associated with the increased throughput of high-speed Ethernet while allowing organizations the cost-benefits reaped by leveraging existing Ethernet knowledge and infrastructure already existing within the organization, all while providing performance ATTO has become known for in the media and entertainment industry. ATTO hardware optimized drivers take advantage of ATTO's 30 years in providing high-performance product for content creators, editors and more. This experience has resulted in tangible and important performance improvements in the areas that matter most to the media & entertainment industry.

The same could be said when comparing ATTO FastFrame NICs to competitor 10GbE NICs. With a pronounced increase over the competition in supporting streams of HD video, FastFrame NICs enable the increasing importance of video accessibility and manageability. As digital video continues to grow in quality, and thus size, this advantage becomes even more pronounced, making FastFrame the NIC of choice with content creators utilizing the 10Gb Ethernet standard.

THE ATTO ADVANTAGE

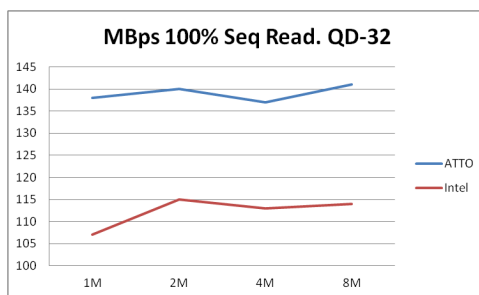
While ATTO FastFrame NICs support Intel® drivers to provide a comprehensive user experience across multiple applications, ATTO's experience in the media & entertainment industry coupled with a holistic development model between hardware and software has resulted in performance characteristics with ATTO's driver that are optimized for the unique needs of those working with digital video.

Recognizing that streaming HD video requires performance that works well in a

large block-size environment, ATTO drivers have been developed to meet those needs. This optimization can be seen in the benchmark results when comparing ATTO's media and entertainment-designed drivers to stock Intel drivers for 10GbE.

Benchmark testing conducted with dual-channel ATTO FastFrame NICs indicate a pronounced advantage across higher block-size transfers. Testing was conducted with the same hardware setup between the ATTO and Intel drivers to provide equivalent comparisons.

As a whole, across block sizes ranging from 1M to 8M the ATTO drivers provided an average of 28% more MB/s in reads, allowing for a smoother streaming experience with less potential for dropped frames when compared to other drivers. The most drastic improvements were seen with 8M block sizes with an average 36% improvement across queue depths of 1, 2, 4, 8, 16, 32.



QD	Transfer Size: 1M		Transfer Size: 2M		Transfer Size: 4M		Transfer Size: 8M				
	ATTO	Intel	QD	ATTO	QD	ATTO	QD	ATTO	Intel		
1	140	106	1	143	117	1	140	113	1	132	107
2	139	107	2	140	115	2	139	107	2	138	110
4	144	108	4	136	115	4	143	114	4	139	55
8	140	108	8	137	115	8	140	115	8	138	110
16	138	107	16	140	113	16	138	115	16	141	112
32	138	107	32	140	115	32	137	113	32	141	114

WHAT DOES THIS MEAN FOR YOU?

The optimized performance of ATTO drivers on FastFrame NICs result in a tangible and relatable end-user benefit: support for more streams of video. When compared to cards and drivers from competing manufacturers, the ATTO advantage becomes clear. ATTO FastFrame NICs offer up to 15% higher stream counts with NTSC DV25, 25% with DVC ProHD and 30% with uncompressed HD.

SUMMARY AND CONCLUSIONS

ATTO's decades-spanning tradition of providing products optimized for the media and entertainment industry has continued with its entry into the 10GbE market. The pronounced benefits of utilizing a manufacturer that knows how to optimize every last piece of performance for the industry are quantifiably demonstrated above, leaving little doubt: If your workflow involves 10Gb Ethernet, FastFrame NICs utilizing ATTO's hardware-optimized drivers are the industry's best-performing choice.

CONFIGURATION

IOMeter test

HOST 1

- SMB 3.0 Share
- Intel computer
- Xeon 2.6G 8-core CPU
- 6GB memory
- FastFrame NS12 NIC
- Windows® 2012

HOST 2

- Client-mapped share
- Dell computer
- Xeon 2.4G 4-core processor
- 4GB memory
- Windows 2012
- FastFrame NS12 NIC