

SMB Overdrive

SMB Overdrive is ATTO Technology's re-engineered macOS® driver for FastFrame® Ethernet NICs and ThunderLink® Thunderbolt™ Ethernet adapters — rebuilt to eliminate the software ceiling keeping SMB-connected storage below its potential. Real-world reads now exceed 10,000 MB/s over ATTO FastFrame 100GbE. Line rate over standard SMB. No infrastructure changes required.

Key Capabilities

- **Driver-level overhead elimination** — modern SMB methods implemented at the driver layer reduce protocol inefficiency without requiring user configuration
- **Dual-path support** — SMB Overdrive is active on both ATTO FastFrame™ Ethernet NICs and ThunderLink® Thunderbolt™ adapters with a single macOS driver
- **Zero-configuration deployment** — active by default in the current macOS driver from ATTO. No workflow changes required
- **ATTO360™ Integration** — pair with ATTO360™ Networking software tuning profiles for system-level optimization across the full storage network

SMB Overdrive

Line-rate NAS throughput on macOS®.

The Challenge

Your 8K editorial timeline cannot afford a dropped frame, and your visual effects pipeline cannot stall mid-render. Yet for years, macOS environments have surrendered a measurable portion of available Ethernet bandwidth before a single byte of useful data moves — lost to SMB protocol overhead.

SMB overhead is not a minor inconvenience. It is the accumulated cost of metadata negotiation, protocol housekeeping and background activity that accompanies every file transfer. On macOS, the problem compounds: Apple devices generate elevated metadata traffic by design, and latency-sensitive creative workflows amplify every inefficiency. The result is a persistent gap between the bandwidth your infrastructure provides and the throughput your workflow actually receives.

The Solution

SMB Overdrive is a collection of driver-level optimizations built into the latest macOS driver from ATTO Technology, Inc. for FastFrame™ Ethernet NICs and ATTO ThunderLink® Thunderbolt adapters. ATTO engineers rebuilt the macOS driver from the ground up — implementing modern SMB methods not previously available in macOS production environments — to close the overhead gap that has constrained NAS performance for a generation.

SMB Overdrive is active by default in the current macOS driver from ATTO. Connect an Apple device, access NAS storage over SMB and the performance gains are immediate. Pair with ATTO360™ Networking software tuning profiles to achieve fully optimized, end-to-end throughput across the storage network.

The Results

ATTO engineers validated SMB Overdrive performance in two production-representative environments, each running SMB-connected NAS storage over ATTO hardware on macOS.

Configuration	Interface	SMB Read Throughput
FastFrame™ N412 100GbE SmartNIC, Mac Pro workstation	100GbE Ethernet	>10,000 MB/s
ATTO ThunderLink® Thunderbolt 5 to 100GbE adapter	Thunderbolt 5	>6,000 MB/s

About ATTO

For over 35 years, ATTO Technology, Inc. has been a global leader specializing in network and storage connectivity and infrastructure solutions for the most data-intensive computing environments. ATTO works closely with its partners to create the world's best end-to-end data delivery, management and storage solutions. ATTO manufactures host adapters, SmartNICs, storage appliances and controllers, intelligent bridges, Thunderbolt™ adapters, and software. ATTO solutions enable high-performance connectivity to all storage interfaces, including Fibre Channel, SAS, SATA, iSCSI, Ethernet, NVMe and Thunderbolt.

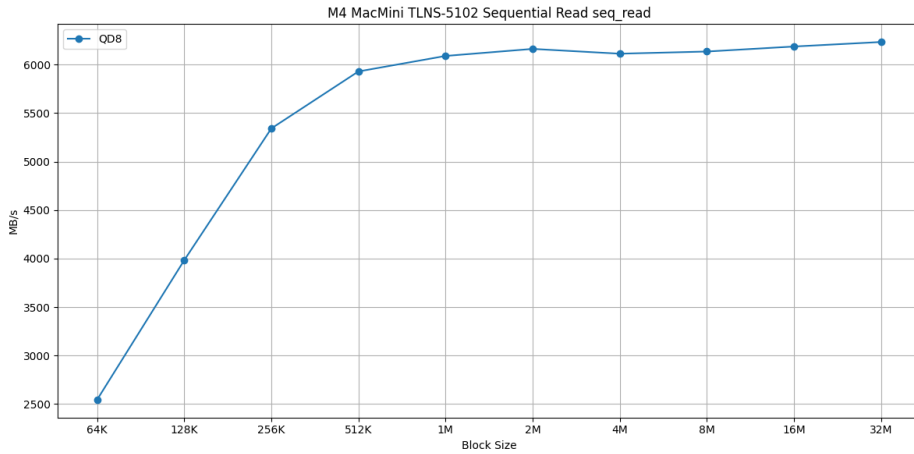


Figure 1 - Benchmarks showing over 6,000 MB/s reads using ATTO SMB Overdrive

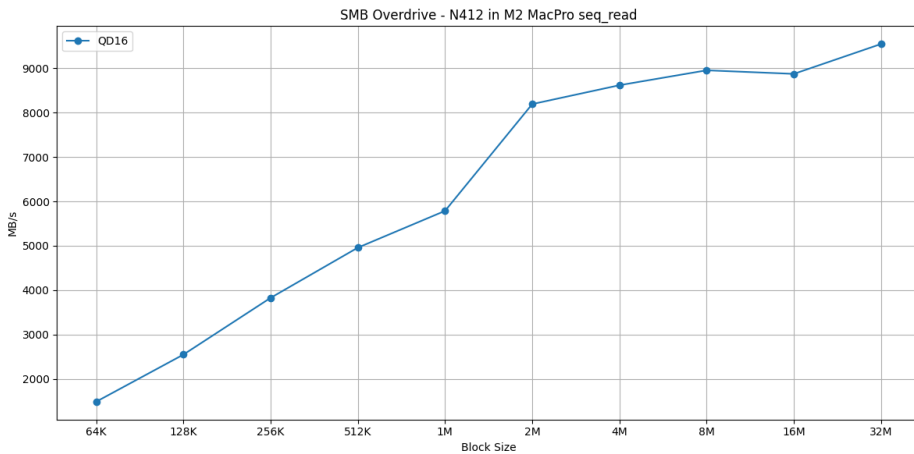


Figure 1 - Benchmarks showing over 10,000 MB/s on a Mac