Accelerate Creativity at Every Stage

Empowering Modern Post-Production Workflows with ATTO and ScaleFlux

As content creators push the boundaries of high-resolution video and immersive digital storytelling the demands of storage performance, scalability, efficiency, and responsiveness have never been greater.

Overview

Media and entertainment professionals demand speed, consistency, and uncompressed performance throughout the entire production pipeline – from high-resolution video capture to ingest, real-time editing, VFX, rendering, and delivery. ATTO Technology and ScaleFlux have joined forces to provide an innovative solution that seamlessly addresses these needs – combining ATTO ExpressNVM™ NVMe adapters with ScaleFlux Computational Storage NVMe SSDs to transform the post production workflow with accelerated performance, enhanced capacity optimization, and intelligent storage management.
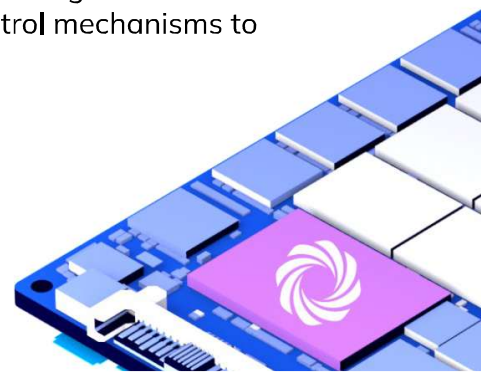
How are WE different?

Scaleflux drives compress data transparently in hardware, giving you more usable capacity without sacrificing speed or introducing complexity. From high-frame rate ingest to VFX rendering loops, the high endurance and thermal stability of drives, extend long-term resilience without sacrificing performance. Enjoy faster playback, smoother scrubbing, and accelerated rendering with more room for source footage – thanks to inline compression.

Built-in Data Ingestion and Pre-Processing for ML algorithms and AI-assisted Editing & Content Analyses without saturating the host CPU.

With plug and play compatibility and no changes to software stacks, studios and post-production facilities can quickly integrate NVMe storage with ATTO ExpressNVM adapters – whether upgrading individual workstation or modernizing shared NAS storage. ATTO's FPGA powered on-board intelligence engine incorporates adaptive control mechanisms to maintain reliability and speed during real-time capture and processing.

SCALABILITY + FLEXIBILITY + MANAGEABILITY = MAXIMIZED PERFORMANCE

Extend the benefits of fine-grained telemetry for Monitoring and Management of ultra-fast storage like never before – with powerful visualization on ATTOview™.

NVMe technology is reshaping the way high-performance storage is designed and deployed. With its ultra-low-latency and blazing throughputs, NVMe flash storage delivers unprecedented speed for today's for most demanding data hungry and performance-driven applications – from real-time analytics and AI workloads to high-resolution media processing and large-scale virtualization environments.

ATTO ExpressNVM adapters and Scaleflux Computational SSDs unlock the ability to scale and manage NVMe with optimized data path handling, preserving IOPS, and aggregated capacity requirements.

Key Benefits

Improve how you ingest, store, edit, and play – with ScaleFlux's <u>Hardware Compression Technology</u>

- **High Throughput, Low Latency**: Designed for high-speed I/O environments like live broadcast and real-time effects pipelines
- **Transparent Hardware Compression**: Automatically compresses compressible data on the fly with no software overhead, freeing up more usable capacity per SSD – up to 4x more!
- **Simplified Integration**: No changes to OS or application stack – storage behaves like a standard NVMe drive, but delivering consistently solid performance across different workloads
- **Extended Drive Endurance**: Built to withstand frequent write-heavy operations typical of editing, rendering, and scratch disk use – with up to 8x endurance!
- **Store More for Less**: Reduce the number for drives needed, extend replacement cycles, and decrease power usage

Whether you are creating award-winning visual effects or producing daily broadcast content, ATTO and ScaleFlux ensure consistent performance under heavy workloads.

Intelligence-driven <u>ATTO NVMe</u> connectivity – so you have better control of your production ecosystem
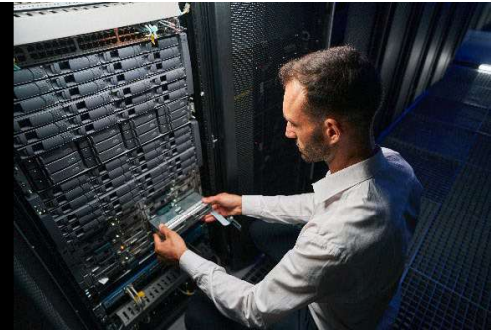
- **Deterministic Latency Management:** Handles concurrent I/O loads from multi-stream editing and real-time playback without the performance spikes that disrupt editorial flow
- **FPGA-Powered Analytics**: Real-time telemetry provides actionable insights into I/O performance, device health, queue depths, and latency – with integrated Monitoring Engine for deep visibility!

- **Flexible Infrastructure Integration:** From creative workstations and on-set DIT stations to NAS and shared storage arrays, ensure fair resource allocation and spot potential slowdowns before impact
- **Sustained Performance Delivery:** Ensure stable throughput and consistent response times across non-linear editing timelines, high-speed ingest, and rendering workloads
- **Expansion and management capabilities**: Multi-core architecture with the most efficient port utilization!

ATTO ExpressNVM™ Switch Adapters extend NVMe's capabilities, opening the door to optimized system designs with robust manageability and NVMe storage expansion.

ExpressNVM™ Features	ENVM-S48F-000	ENVM-S4FF-000
No. of Drives Supported	8 x4 lanes	16 x2 lanes
Drive Types	M.2, U.2, U.3, EDSFF	M.2, U.2, U.3, EDSFF
PCIe Host Connectivity	x16 PCIe Gen4	x16 PCIe Gen4
Connector Type	SlimSAS (SFF-8654)	SlimSAS (SFF-8654)
Max Throughput	32GB/s	32GB/s
Power Rating	12V @ 1.7A	12V @ 1.7A
Dimensions	6.600" L x 2.713" H	6.600" L x 2.713" H
Weight	0.25lbs	0.25lbs
Warranty	3-year standard	3-year standard

Economically deploy efficient, reliable, and smart NVMe storage systems with up to 16 drives on a single PCIe slot with the flexibility, control, and scalability missing from other NVMe platforms.

NVMe SSD Specifications	CSD 3000 Series NVMe®
Form Factors	2.5" U.2 (15mm), U.3, E1.S (15mm)
Default Capacities	3.2TB, 3.84TB, 6.4TB, 7.68TB, 15.36TB
Host Interface	PCIe Gen4 x4
Sequential Read	7.2GB/s
Sequential Write	4.8GB/s
Security	TCG Opal 2.0 with HW Security Acceleration
Power	<20W Typical, <5W Idle

ATTO

About ATTO Technology

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.

www.atto.com

ScaleFlux

About ScaleFlux

ScaleFlux – the enterprise Flash Storage and Memory innovators. Unlock unprecedented performance, efficiency, security, and scalability for your data infrastructure – from AI/ML, enterprise, and data center to edge computing and inferencing.

www.scaleflux.com