

Modernizing M&E Workflows with Ethernet-Enabled Tape Infrastructure

A Joint Solution from IBM and ATTO Technology

Highlights

Scalable and secure media archiving using IBM Diamondback's ultra-dense tape library

Shared, high-performance tape connectivity across Ethernet with ATTO XstreamCORE bridges

Automated, policy-driven data management with IBM AREMA intelligence

Sustainable, high-density storage architecture with low power consumption, reduced TCO, and greater operational efficiency



Store up to 116.1PB of compressed data in a single 8-square foot library.

Preserving Creativity, Simplifying Infrastructure

The Media & Entertainment (M&E) industry is producing more unstructured digital content than ever, from 4K and 8K shoots to CGI, AI-created assets, and virtual reality content. This content contributes to an exponentially growing digital asset library, requiring intelligent, cost-effective, and secure long-term preservation for future monetization, regulatory compliance, and historical significance. Managing this massive amount of "cold" data—rarely accessed but indispensable—is a critical challenge. Traditional storage methods often lead to spiraling operational costs, performance bottlenecks, and heightened cybersecurity risks. To stay competitive, M&E leaders need a different approach.

Unlocking Tape Benefits with Ethernet: IBM and ATTO

Traditional direct-attached tape storage present scalability challenges in the digital age of data explosion with limited access to tape infrastructure – increasing the risk of downtime, costs, and complicating media workflows. IBM and ATTO introduce a robust and flexible architecture with an Ethernet-based solution that breaks down data silos and puts storage at your fingertips.

IBM Diamondback: Scalable, Sustainable Storage

IBM Diamondback Tape Library is engineered for the demanding digital asset preservation needs for the M&E industry, providing a foundation for massive, sustainable, and readily accessible content libraries and media archives.

- Store up to 46.4 Petabytes of storage in 0.76 square meters of rack space, maximizing your valuable facility footprint
- Less than 1kWh of power—up to 97% less than equivalent disk-based alternatives
- LTO-10 capability for high-speed data handling for rapid ingest and retrieval of even the largest 4K/8K files
- Modular design allows for seamless expansion, effortlessly growing with your content library without costly infrastructure overhauls

With its combination of capacity, performance, and sustainability, Diamondback is the perfect answer for data retention and protection in modern digital workflows.



Fast-track infrastructure modernization with simplified, network-based shared tape connectivity.



With Ethernet-to-SAS bridging, organizations gain the flexibility to centralize resources, streamline collaborative workflows, reduce complexity, and build cyber-resilient storage.

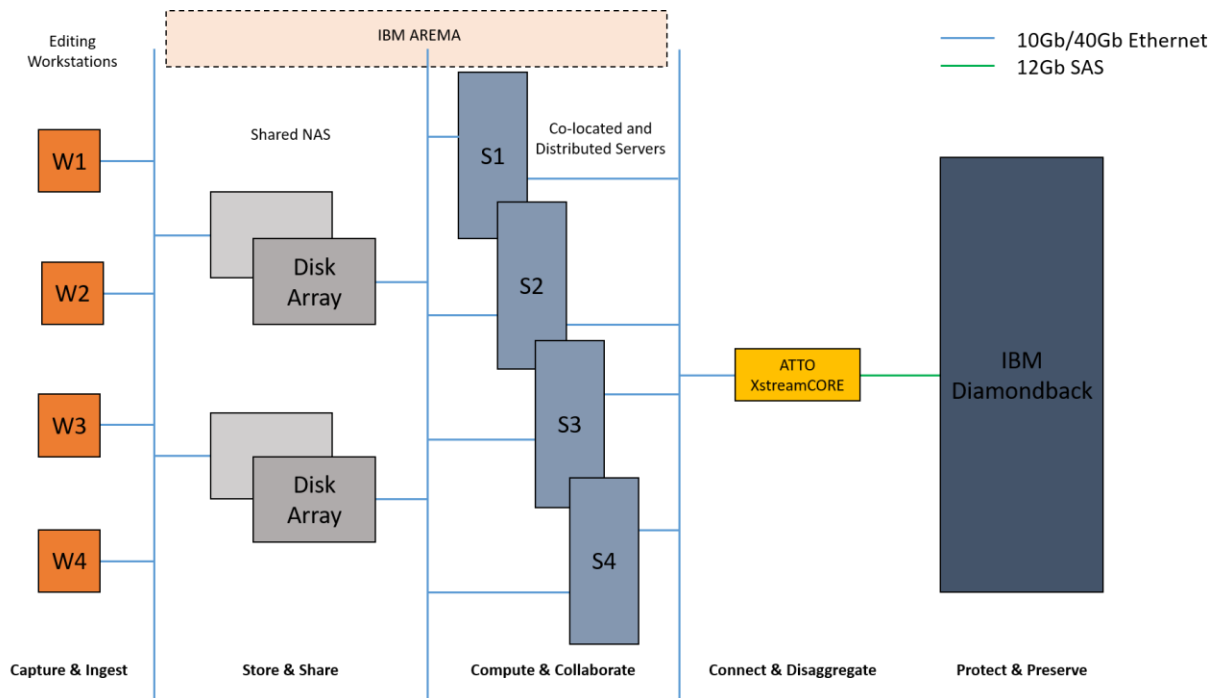
ATTO XstreamCORE: Ethernet to SAS Tape Bridge

ATTO XstreamCORE® intelligent bridges transform your tape library into a dynamic, network-connected storage asset that is ready for modern workflows. It is a high-speed protocol conversion appliance that translates direct-attached SAS tape devices into shared network-attached resources.

- Performance-optimized Ethernet connectivity to SAS tape drives and libraries, allowing multiple systems to share and access tape resources across the network
- Low-latency, hardware-accelerated bridging technology guarantees consistent tape performance and reliability at direct-attached speeds, even in networked environments
- Removes server-tape proximity constraints, unlocking remote and shared access to tape infrastructure across facilities, data centers, or production sites, critical for distributed workflows and collaboration
- Simplified setup, configuration, and management through intuitive tools and centralized control reducing deployment times, IT overhead, and operational complexity in modern backup and archiving environments.

With XstreamCORE, M&E organizations can now consolidate tape storage and make it available over the network —eliminating islands of storage and enabling seamless integration with postproduction and media archive workflows. Linear Tape File System (LTFS) support enables tape to be completely integrated into file-based workflows, providing content creators with a searchable and secure storage tier. Accelerate deployment and ensure optimized performance with built-in device manager and ATTO360™, offering auto-tuning, intelligent monitoring, diagnostics, and workflow specific enhancements for media and archive environments.

ATTO XstreamCORE Ethernet bridges are certified and qualified with IBM Tape Storage, delivering trusted compatibility and enterprise-class performance. Whether you are modernizing connectivity or extending your tape infrastructure for remote backup and archival workflows, XstreamCORE serves as a strategic enabler of both data protection and long-term data management.



Emmy® Award winning Hierarchical Storage Management (HSM) Technology, trusted for intelligent media workflow orchestration and archive management.

IBM AREMA: Automated Media Backup & Archiving

To truly orchestrate the modern M&E content lifecycle, IBM Archive and Essence Manager (AREMA) extends an intelligent, software-defined automation layer that is designed for large-scale, file-based media environments. This innovative platform integrates easily into your Media Asset Management (MAM) system, allowing post-production and broadcasting teams to manage and automate complex media workflows.

- Policy-based automation of retrieval and retention operations for better content lifecycle management
- Metadata-aided data mobility across storage tiers allowing seamless content migration
- Optimized for smooth integration of post, production, and archive workflows for greater efficiency
- Centralized single-pane-of-glass control that reduces operational cost and minimized manual intervention

AREMA makes the M&E infrastructure more agile by bridging the gap between preservation and production – integrating robust, cost-effective tape into the storage ecosystem without impacting collaborative workflows.

Accelerate production by up to 40% with intelligent workflow orchestration, reducing manual touchpoints and enabling faster media delivery.

Enable smart data protection strategies with mass-storage shareability, offering up to 4x lower TCO than traditional tape interface methods.

Boost data resilience and recovery agility by enabling fast, multi-host access to media archives and content libraries over Ethernet – without relying on direct-attached systems.

A Unified Vision for Modern M&E Infrastructure

ATTO and IBM, together, give modern studios and post-production houses the ability to maintain and secure creative assets while optimizing budgets and transforming their IT infrastructure. By bringing the unparalleled benefits of tape into the Ethernet network, content creators and studios can automate production, scale on demand, and reduce their carbon footprint.

Upgrade to a high-performance, network-integrated storage layer

Break-free from the limitation of direct-attached models. With network access enabled by ATTO XstreamCORE, tape libraries become part of your shared infrastructure – giving all MAM systems and servers secure, streamlined access to backup and archive resources. This eliminates bottlenecks, simplifies data movement, and optimizes your storage hierarchy.

Scale capacity with ease without adding layers of complexity

Decentralized, Ethernet-based architecture eliminates challenges associated with co-located servers and localized placement of tape drives or libraries. A modular and Ethernet-based architecture effortlessly supports growing M&E workloads with the need for serving remote facilities or meeting demand for increased data storage.

Optimize production efficiency without disruptions

Improve production performance by allowing shared and fast access to tape across all MAM systems. Automated processing and orchestration ensure that video and image files flow logically through the production-to-preservation pipeline without disrupting editing or content delivery timelines.

Minimize operational overhead with control and visibility

IBM AREMA simplifies archive and retrieve operations, significantly reducing administrative overhead. With policy-driven archiving, orchestrated data transfer, and centralized management tools, you can free up IT resources and minimize human error, further streamlining day-to-day management.

Gain secure, long-term storage with high endurance, and air-gapped security

Tape provides the lowest per-terabyte cost for archive storage, reducing dependence on expensive disk-based infrastructure. Combined with significant energy and cost savings, this solution offers security and sustainability for digital media preservation while maximizing the lifetime value of your storage investment.

The Importance of Tape in the Age of AI

Tape storage is experiencing a powerful resurgence as organizations look for secure, durable, and sustainable solutions to protect critical data. Offering unmatched long-term dependability and ironclad data security, in an era where AI-assisted workflows are generating massive datasets and accelerating content production, tape storage remains the optimal and resilient choice for managing the entire lifecycle of valuable digital assets.



- 30+ years of media archive life, ensuring your assets outlast evolving technologies
- 17 nines (99.99999999999999%) data durability, virtually eliminating data loss
- AES-256 encryption at rest with no performance penalty, safeguarding sensitive content
- Air-gapped protection against cyber threats and ransomware provides an unbreachable barrier
- Gigantic power savings and cost reductions compared to disk-based archives, contributing to your sustainability goals

IBM + ATTO: Media Archiving Solution from the Tape Experts

The combined expertise of IBM and ATTO Technology delivers a solution greater than the sum of its parts. ATTO's groundbreaking Ethernet-to-SAS connectivity liberates your tape infrastructure, making it a shared, high-performance network resource. IBM's Diamondback provides the massive, sustainable, and secure capacity, while IBM AREMA orchestrates your entire media workflow with intelligent automation.

Together, we provide the complete end-to-end solution for modernizing your media archives, from capture to long-term preservation.

For more information

To learn more about IBM Diamondback, IBM AREMA or ATTO XstreamCORE, contact your IBM or ATTO representative or Business Partner, or visit <https://ibm.biz/BdGd7A> , <https://ibm.biz/BdndQN> and <https://ibm.biz/ATTO-Bridge>.

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Produced in the
United States of America
July 2025

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