

**ATTO****ARCHIWARE**

Boosting Data Resiliency through Smarter Connectivity

From Direct Attach to Network Ready Backups!

Meet growing data protection demands with modern LTO tape solutions that work across direct and networked environments – powered by ATTO and Archiware.

Cybersecurity breaches and ransomware are making one thing inevitable: offline, air-gapped backups are a necessity. Organizations of all sizes are turning to LTO tape as a cost-effective, reliable, and secure added layer to their data protection strategy. Whether you are running dedicated backup servers or building shared, scalable environments, Archiware P5 delivers robust data protection and asset management. When combined with ATTO Technology's storage connectivity solutions, organizations can maximize flexibility, efficiency, and build a future-ready infrastructure.

Here are two practical deployment scenarios that show how Archiware P5 works seamlessly with both ATTO ExpressSAS® SAS/SATA host bus adapters (HBAs) and ATTO XstreamCORE® 8100T bridges.



Scenario 1: Flexible, Scalable, and Distributed Backup Workflows with ATTO XstreamCORE® 8100T

teams with limited backup expertise and policy-based data management increasing the risk of error and downtime. Additionally, the need for secure, offline copies with reliable audit trails was a must for their data breach response plan.

the need for multiple standalone backup systems or complexities associated with managing direct-SAS connections. This reduced operational overhead and costs and also enabled the implementation of an offline backup strategy aligned with the university's cybersecurity and risk management policies.

USE CASE

A university media department needed to centralize its backup and archiving infrastructure to orchestrate secure backups from across multiple servers – physical and virtual – while adhering to data protection laws and privacy compliance. With multiple labs and production teams spread across campus, maintaining separate backup systems were costly and inefficient. Different departments were using a mix of direct-attached and network storage systems with no standardization, making coordination and recovery difficult. Systems were maintained by individual lab teams with limited backup expertise and policy-based data management

SOLUTION

An ATTO XstreamCORE 8100T bridge sits between a SAS LTO tape library and the network, allowing Archiware P5 to access the tape library over Ethernet via iSCSI. Within P5 the tape drives are presented just like any other direct-attached SAS device. Archiware P5's built-in support for tape libraries and multiple drives, and job scheduling made it easy to manage simultaneous backup and archive tasks from different departments while the 8100T facilitated centralized operation and management of the tape system. The university's IT department had full visibility and control over all tape jobs, eliminating

BENEFITS

- Use the tape library with Archiware P5 via the network
- Simple to setup, manage, and scale – No SAS HBAs needed on backup servers or VMs
- Supports air-gap strategies by logically disconnecting tape devices when not in use
- Remote access to archived media via secure VPN + P5 web interface
- Centralized management of tape assets and network topology with granular visibility
- Ideal for hybrid, virtualized environments, shared backup services, and modernization of data protection strategy

Scenario 2: Orchestrate Backups Locally with ATTO ExpressSAS® HBAs

USE CASE

A creative post-production studio working in 4K and 8K RAW needed a high-speed backup and archive solution that wouldn't interfere with their daily editing operations. The team runs a mix of macOS® and Windows® workstations, relying on SAS-based storage for fast local access and editing. However, backup operations began competing with active workflows, causing system slowdowns and missed production deadlines. Editors resorted to manually copying files to external drives or small NAS units – leading to a fragmented backup process and increased risk of human error. As the projects grew in complexity and size, the studio needed a more efficient and cost-effective way to offload large media files while ensuring data security and long-term preservation.

SOLUTION

Designed to overcome conventional limitations of commodity HBA solutions, ATTO ExpressSAS delivers with enhanced signal integrity, deep queue support, and advanced diagnostics – ensuring fast, reliable and high-throughput transfers between the backup server and tape library – even under demanding conditions. When paired with Archiware P5, the studio gained an intuitive software layer to automate and orchestrate daily backup tasks. Additionally, P5 Archive is used to preserve completed projects and media files for reuse, reference and monetization. P5 natively supports tape workflows and provides streamlined job scheduling, file-level recovery, and effortless management of media assets. Leveraging LTO-9 provided the studio with tamper-proof, offline storage ideal for commercial and client-owned content -enabled long-term digital preservation at a significantly lower cost than expanding disk-based infrastructure.

BENEFITS

- Reliable and consistent data transfers for professional backup tasks
- Archiware P5 provides Backup and Archive in one solution
- Optimized for 1:1 connectivity in smaller, fixed environments
- Lower cost of entry compared to larger network-based storage solutions
- Streamlined automation and management with Archiware P5 backup and archiving
- Enhanced performance with tape-optimized SAS HBAs, improved overall reliability and quality of transfers

WHY ARCHIWARE + ATTO ARE A PROVEN PAIR

Archiware p5 is a modular data management suite trusted by media, corporate it, education, and research institutions around the world – adding structure and automation to the data lifecycle. atto and archiware bring unmatched value to lto backup and archiving.

- Tight integration with tape libraries and automation
- Maximum security through air-gap of lto creates cyber-resilient backups
- Greater flexibility for multi-user and multi-server environments
- Optimized performance for large media or dataset transfers

While traditional SAS host bus adapters are still an option for point-to-point setups, the real breakthrough is ATTO XstreamCORE 8100T, a protocol conversion appliance that transforms sas-based tape libraries into network-attached resources – with full performance and without additional cost and complexity.

Feature	ATTO ExpressSAS HBAs	ATTO XstreamCORE 8100T
Supported with Archiware P5	✓	✓
LTFS Support	✓	✓
Shared Access to Tape Librar	✓	✓
Network-based Deployment	✓	✓
Works with VM/Containers	Limited	✓
Setup & Management	Traditional server-attached model – increased dependency and risk	Enables composable storage architecture, flexibility at scale, and centralized IT management
Tape Library Scalability	Limited to number of ports/HBAs/ server slots	Easily scalable – multiple servers can access tape library
Operating System Dependency	Requires drivers per OS	OS-agnostic – presents drives and media changer as standard iSCSI targets
Network Security	Limited	Secure authenticated access
Offload tape handling from primary backup server	✓	✓
Cost Efficiency	Lower initial cost for standalone workflows	Higher value for multi-host environments or tape storage consolidation/disaggregation

Standalone LTO SAS drives (desktop) can connect directly to the ATTO XstreamCORE 8100T making them available on the network without needing to sit next to the server or a workstation. And when a server or NAS has no available SAS ports, the 8100T enables seamless integration over standard Ethernet – simplifying tape connectivity and expanding deployment options.

Both connectivity options support Archiware P5's policy-based moving, replicating, restoration and tiering of archived data that is part of the P5 Archive DLM add-on. In XstreamCORE deployments, the bridge presents each drive and library element as iSCSI targets, fully compatible with Archiware's media handling and scheduling logic. Furthermore, built-in acceleration and deep buffer management on the 8100T ensure smooth data transfers over the network – even when multiple streams are in use.

CYBERSECURITY IS DRIVING THE RETURN TO TAPE

And Pushing the Need for Smarter Connectivity



As cyberattacks and ransomware grow increasingly sophisticated and disruptive, the value of cyber-secure data protection continues to soar. To counter these threats, the industry is advancing data protection technologies to minimize damage. LTO tape with its built-in air gap offers a cost-effective, scalable, and secure storage solution, consistently proving its reliability in safeguarding critical data.

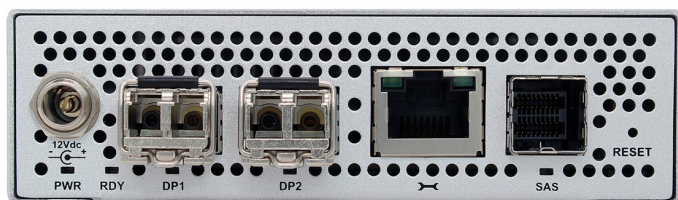


- **Air-Gapped Security:** Tape media are literally offline when they are pulled out from the drives and hence carry no vulnerability to ransomware or cyberattacks.
- **High Capacity & Speed:** 30TB per cartridge and 400MB/s performance.
- **Scalable & Portable:** Simple to scale by adding tapes, disaster recovery is supported through offsite storage.
- **Long-Term Reliability:** 30-year shelf life, optimized for compliance and cold storage.
- **Cost-Efficient:** Priced from less than \$8/TB with zero power and cooling needed on the shelf.

WHY XSTREAMCORE 8100T WINS?

Whether you are evolving from a standalone backup server or building out a shared resource model, ATTO and Archiware have the most effective solutions for you. While SAS remains useful and widely popular in backup and archiving environments, ATTO XstreamCORE 8100T stands out as the smarter choice for scalable, secure, and future-ready backup environments. When combined with Archiware P5, it transforms LTO tape into more than just a storage medium – it becomes an integral layer of your cybersecurity strategy.

For resellers and IT teams planning ahead, the XstreamCORE 8100T provides a powerful path to centralized, multi-host tape deployments that are easier to manage, protect, and grow.



ABOUT ATTO TECHNOLOGY, INC.

For nearly 40 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.



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