ATTO and IBM Storage
Transforming Tape Data Connectivity

Solution Overview

Data creation continues to grow exponentially. According to McKinsey Group, 79% of IT teams struggle to migrate data to a low-cost storage tier. This results in excessive data retention on high-cost storage. tiers, which can negatively impact production workloads. While Fibre Channel remains the dominant method for connecting external storage, Ethernet connectivity for block storage is gaining traction, accounting for 12% of all external device connections. Ethernet connectivity provides the flexibility and standardization that I&O managers require for modern data centers.

ATTO Technology provides proven bridge interfaces for iSCSI to Serial Attached SCSI (SAS) devices. The ATTO XstreamCORE 8100T is a reliable and robust intelligent bridging device that allows up to four servers to connect to up to four SAS tape drives via iSCSI. The tape drives appear as iSCSI targets to the servers. Backups, restores, and data migrations can be performed over long distances using existing Ethernet infrastructure. Bridges can be stacked if more tape drives or servers are needed.

By integrating the 8100T with IBM Diamondback tape library technology, ATTO and IBM offer IT managers Ethernet-connected IBM tape solutions for open compute, hybrid-cloud, and hyperscale data centers

Solution Benefits

Groundbreaking Solution for Virtual and Hyperconverged Infrastructures

Server virtualization is widely deployed across businesses of all sizes, supporting a wide set of applications and services. However, most virtualization apps do not support direct path IO to allow tape drives to be connected directly to Hypervisors. Multiple separate backup and tape servers must be added to manage backups. This adds cost, power, cooling, licenses, rack space, and IT resources.

Instead, an 8100T bridge can be used to connect the IBM tape drives to the Ethernet network that runs across the Hypervisors. Simply create a VM(s) that can be used to manage the backups across the network. If a VM needs to motion to a different physical Hypervisor, the secure connections to the bridge and tape drives remain intact.

As your infrastructure grows, simply add more bridges, tape libraries, and VMs.

Tape Storage Optimization

Leverage the economic benefits of SAS tape storage while realizing the shareability, scalability, and remote connection capabilities of networked tape storage.
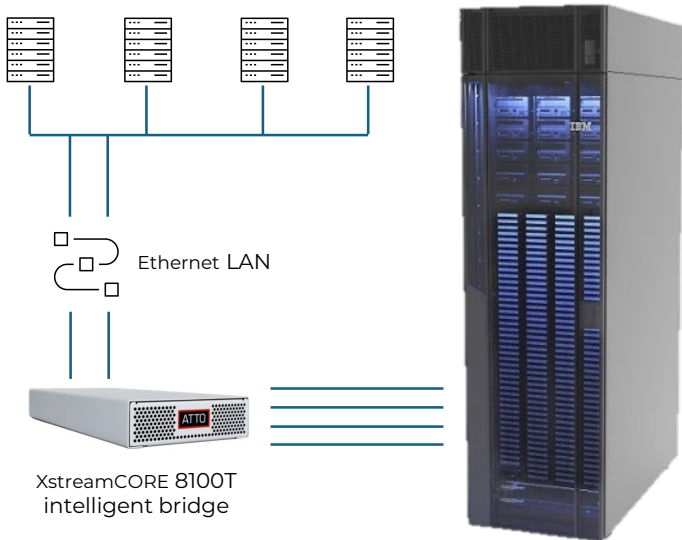
Adding Flexibility to Tape Connectivity

Direct Attached SAS tape offers only limited flexibility. By utilizing an iSCSI SAN, the Ethernet-to-SAS bridge overcomes these limitations by allowing multiple servers to share a tape library and virtually eliminating single points of failure and performance bottlenecks. Data centers can reduce risk and streamline the backup workflow with redundant sources collaborating on backups, restores and data migration.
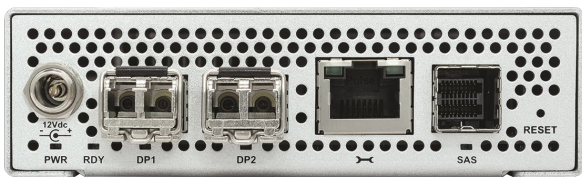
Improve Infrastructure Standardization

Our joint solution prioritizes security and data integrity. IBM tape libraries provide tape technology with drive-level encryption, ensuring data is securely written and stored. The combined solution has air gap capabilities for the ultimate data safety and protection.

Flexible Storage Connectivity

Ethernet LAN

XstreamCORE 8100T
intelligent bridge

ATTO XstreamCORE ET 8100T connects to the standard Ethernet LAN and bridges to SAS tape drives. All tape drives are now available to all servers over Ethernet.

PWR   RDY   DP1   DP2   ⋈   SAS

XstreamCORE 8100T Connections

ATTO XstreamCORE ET 8100T 10Gb Ethernet to SAS tape drives

The ATTO XstreamCORE ET 8100T 10 Gb intelligent bridge allows remote connections to SAS tape drives over standard Ethernet networks using iSCSI protocols. Enhancing infrastructure sharing while retaining direct-attach performance.

ATTO XstreamCORE ET 8100T intelligent bridge specs	
Protocol	10Gb iSCSI
SAS devices supported	4 SAS tape drives
Max. performance	2000 MB/s
Form factor	9.4"L x 4"W x 1.75"H 1U flex rack available (4 bridges)
Input Connections	Optical SFP+ or Copper RJ45 SFP
Output Connectors	One 12 Gb SAS x4 fanout
Warranty	3 yr standard/5 yr extended

The ATTO XstreamCORE ET 8100T enables Ethernet access to any IBM SAS-connected tape library. This allows server resources to be installed at remote locations, extending the reach of tape automation. With multiple hardware acceleration engines, the 8100T delivers industry-leading performance, supporting up to four SAS tape drives.

Use Cases

- Mobile Data Collection
- Remote Location
- Edge Data Collection
- Data Migration

- Virtual Environments
- HPC
- Ethernet-only DC
- M&E

- Hyperconverged
- Finance
- Data Protection
- Large Scale DC on Ethernet

About ATTO Technology
ATTO Technology, a globally recognized leader in storage and network connectivity solutions. For over 35 years, ATTO has been pioneering innovative technologies that empower organizations to maximize the value of their data. All our products are proudly designed and manufactured in the United States, ensuring the highest quality and reliability.

About IBM
International Business Machines Corporation is an American multinational information technology company headquartered in Armonk, New York, with operations in over 170 countries.

IBM offers a full range of tape storage products including drives, autoloaders, libraries, virtual tape systems, IBM Storage Archive software, IBM Storage Deep Archive object storage and Hybrid solutions.

www.ibm.com   ATTO   www.atto.com