



ATTO

Quantum®



Addressing Backup Challenges in Today's HCI Environments

A leading energy company, serving over 10 million customers, faced data protection challenges within their hyperconverged infrastructure (HCI) due to a reliance on disk-based backups and a lack of tape storage support. They implemented ATTO XstreamCORE® 8100T to integrate a Quantum Scalar® i3 tape library into their existing Ethernet infrastructure. This solution enabled centrally managed, VM-based backups, eliminating the need for dedicated physical backup servers and streamlining operations while reducing IT overhead.

ATTO XstreamCORE® Intelligent Bridges
Quantum® Scalar® i3 Tape Libraries

Background

Hyperconverged infrastructure (HCI) has seen rapid adoption across various industries due to its ability to simplify IT operations and improve efficiency by combining compute, storage, and network into a single, scalable architecture. While HCI offers significant benefits, the reliance on disk-only backups in these environments increases exposure to ransomware and cyber threats. Integrating air-gapped media, like tape, into these environments often requires significant hardware and software modifications, creating silos outside the consolidated environment and consuming critical resources.

Tape remains an excellent solution for HCI environments due to its inherent air-gapping for enhanced security against cyber threats, cost-effectiveness for long-term data retention, and high capacity for storing massive volumes of data with low power consumption.

Key Solution Features:

- **Consolidation of tape backups** regardless of the origin of data.
- **Reduction of manual intervention** with the ability to automate and replicate backups.
- **Remote Management** and access to backup copies stored on tape, streamlined operations and improved efficiency.
- **Minimized IT overhead and hardware expenses** with a cost-effective and simplified approach.
- **Eliminated the need for dedicated** physical backup servers by leveraging VM-based backup orchestration.

The Challenge

Organizations, regardless of their size or industry, encounter unique challenges when orchestrating data-driven workflows - impacting their long-term data management practices and strategy initiatives.

For one power utility company these challenges manifested as:

- **Heavy reliance on disk-based backups** presented growing concerns of ransomware and cyberthreats.
- **Deficiencies in pre-configured HCI appliances** introduced challenges with connecting tape storage.
- **No support for tape-based backups** in a virtualized and tightly integrated hyperconverged environment.
- **Limited expertise in-house to support** alternative and budget-restrictive integrations over the network.

The Solution

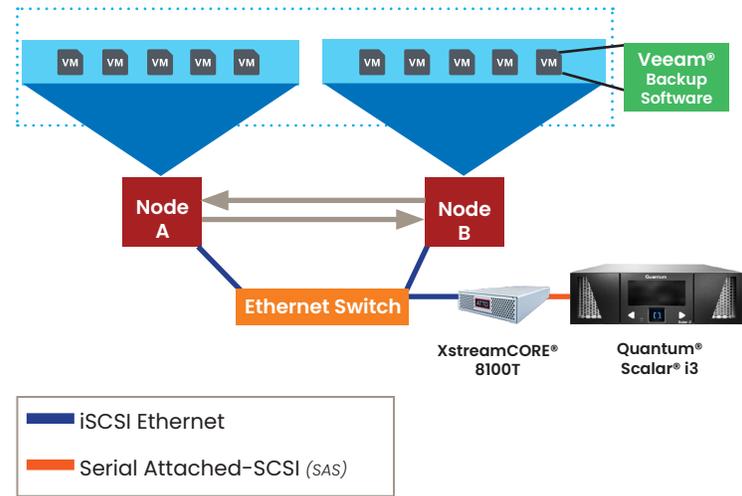
Upon recommendation from a trusted global solutions provider, the utility company adopted ATTO XstreamCORE® intelligent bridges, which directly address today's storage connectivity challenges, setting a new standard for tape storage deployment in hyperconverged, data center, and enterprise environments. Purpose-engineered to support both storage consolidation and disaggregation, XstreamCORE bridges are high-speed protocol conversion appliances that seamlessly extend SAS block storage over existing IT infrastructures – eliminating the physical and architectural constraints of traditional direct-attached models.

- ✓ The Ethernet-to-Tape bridging device enabled simplified integration of the Quantum® Scalar® i3 tape library into the existing Ethernet infrastructure.
- ✓ Ethernet-to-Tape bridging device enabled simplified integration of the Scalar i3 tape library into the existing Ethernet infrastructure.
- ✓ Provided dedicated access to SAS Tape drives for centrally managed backups of daily production and VM data.
- ✓ With a VM taking on the role of a Veeam backup server, backup processes such as replication, snapshots, and migration were effortlessly managed.
- ✓ SAS Tape connectivity over the network allowed locating the Scalar i3 tape hardware in an isolated section of the data center.

Note: Connected tape drives appear as SAS-attached devices on Veeam Backup Replication software - no configuration changes are needed.

Outcomes

ATTO XstreamCORE 8100T delivered a backup solution that integrated into the HCI environment with streamlined access to tape storage in the HCI cluster. Eliminating the need for silos of compute and storage outside the HCI, 8100T maintained tape storage connectivity across the network while ensuring portability between various nodes within the cluster.



ATTO XstreamCORE 8100T SKU: XCET-8100-TS0



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|--------------------------------|------------------------------|
| Network Connectivity | 10GbE Ethernet (iSCSI) |
| No. of Tape Drives Supported | Up to 4 SAS LTO |
| No. of Network Ports | 1 x10GbE SFP+/RJ45 |
| Tape Connector | 1 x12Gb/s miniSAS HD |
| Tape Generation | LTO-5 or later |
| Max Throughput | 2000MB/s |
| LTFS Support | Yes |
| Tape Hardware Management | Yes |
| Security Features ¹ | Yes |
| ATTO SpeedWrite™ & SpeedRead™ | Yes |
| Operating System Support | Linux, Windows, and macOS |
| Power Consumption | 30W |
| Dimensions | 1.2H" x 4.0W" x 9.4L" |
| Weight | 2.05lbs |
| Rackmount | Up to 4 using ATTO FlexRack™ |
| Warranty ² | 3-year standard |

¹ User authentication and tape hardware assignment is facilitated using CHAP and ACL

² 5-year extended warranty is available for purchase separately

