



Queensland University of Technology Enhances Data Management with Spectra Logic and ATTO Technology

By replacing legacy Fibre Channel connections with ATTO XstreamCORE® 8200T Intelligent Bridges, QUT unified its storage network and improved data transfer speeds. The tape libraries provide high-capacity storage, data integrity, and security features, ensuring that QUT's valuable research data is protected and accessible for years to come.

ATTO XstreamCORE Intelligent Bridges

The Challenge

Queensland University of Technology (QUT), a leading Australian research institution, faced unprecedented data growth requiring indefinite storage. QUT's expanding research programs generated vast amounts of data needing preservation and accessibility across disciplines. The university's operations across two geographically separate campuses complicated matters, necessitating a reliable, unified interface to manage multiple connected storage technologies.

While most of QUT's research storage system had been modernized, their tape archive still relied on Fibre Channel connections over a wide-area network (WAN) to their two separate on-campus data centers. This setup proved cumbersome, leading to increased costs and complexities in managing data movement as storage needs grew.

QUT required a solution that would accommodate current data storage needs, ensure long-term scalability, integrate seamlessly with existing infrastructure, maintain data integrity, and provide global access to research data, all while being future-proof and cost-effective.

RESULTS

 **Streamlined Data Management**

 **Enhanced Performance**

 **Future Growth and Scalability**

The Solution

QUT deployed two Spectra® TFinity® ExaScale Tape Libraries, equipped with LTO-9 tape drives and media. Each tape library was installed in separate geographic locations in Brisbane, approximately 40 to 50 kilometers apart, ensuring redundancy and enhanced disaster recovery capabilities.

A key component of the solution was the integration of **ATTO XstreamCORE ET 8200T bridges**. These Ethernet-to-SAS bridges replaced the legacy Fibre Channel infrastructure, allowing QUT to unify its storage network under a common interface and leverage the same Ethernet connectivity as the rest of its data center equipment.

The ATTO XstreamCORE ET 8200T bridges provided **dual 40GigE interfaces**, enabling faster, more efficient data movement between the tape libraries and QUT's high-performance computing systems. This technology allowed for seamless integration of the Spectra TFinity libraries into QUT's existing Ethernet infrastructure, providing a cost-effective and scalable solution for connecting SAS tape drives to the network.

Business Outcome

The deployment of Spectra TFinity Tape Libraries with ATTO XstreamCORE ET 8200T bridges has transformed QUT's data storage strategy, offering substantial benefits in performance and cost-efficiency. Each library can scale over an exabyte, ensuring QUT's storage infrastructure is equipped to handle future data growth.

“The combination of Spectra tape libraries and ATTO Ethernet-to-SAS bridges provides QUT with a solution that will cost-effectively scale and upgrade in technology as their high-performance computing platform grows.”

Data integrity and security are now assured for QUT research data, with the ability to retrieve stored data at any time, regardless of archival duration.

QUT's use of Spectra Certified Media, combined with the tape libraries' sophisticated monitoring and management software, enables proactive identification of potential issues with data, drives, or media before impacting operations.

The implementation of a tape air gap—storing an electronically disconnected copy of data—further safeguards QUT's data against cyber threats. To protect against natural disasters, QUT maintains separate copies of their archive data across two geographically dispersed tape libraries. Combined, QUT has significantly enhanced its data protection strategy.

Chris Williams, Senior Manager of eResearch at QUT, emphasized the importance of the solution for the university's future growth: “We are seeing unprecedented growth in research here at QUT, with a 40% increase in the last five years.”

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The implementation of Spectra Logic TFinity ExaScale Tape Libraries, integrated with ATTO XstreamCORE ET 8200T bridges, has allowed QUT to effectively manage its growing data storage needs while ensuring data integrity, scalability, and cost-efficiency. By leveraging ATTO's Ethernet-to-SAS technology and integrating with existing data center infrastructure, the solution has **streamlined data management** and **enhanced the performance** of QUT's high-performance computing platform.

With the ability to easily upgrade to future tape generations and the protection provided by the tape air gap, QUT is well-positioned to continue supporting world-class research while maintaining the highest standards of data security and accessibility.

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