LumOS Fuels Efficiency at the Pawsey Supercomputing Research Centre

SPECTRA   **pawsey**

In a sleek, purpose-built facility in Kensington, Western Australia, the Pawsey Supercomputing Research Centre hums quietly beneath the weight of some of the most ambitious scientific work in the Southern Hemisphere.

Behind its glass, concrete, and photovoltaic walls, Australia's most powerful research computer facilitates discovery across wide-ranging fields such as radio astronomy and ion-atom collision physics.

To make all this possible, the Pawsey Centre requires more than just raw processing power. It also needs a commitment to progress and a whole lot of tape storage infrastructure.

Chris Schlipalius is the keeper of Pawsey's massive data storage system, which is named "Banksia" after a resilient native Australian wildflower.

As storage manager for supercomputing platforms, Schlipalius and his team ensure data is accessible to scientists worldwide. ➡

At a Glance

- The Pawsey Supercomputing Research Centre upgraded to LumOS to improve tape library speed and manage growing expenditures.

- LumOS is three to four times faster than its previous operating system.

Video Testimonial

Chris Schlipalius shares his first-hand experience with LumOS:

> **“** We decided to **upgrade with LumOS** because its REST API interface is **fast and efficient.**

Chris Schlipalius
Storage Manager, Data Storage Infrastructure, Supercomputing Platforms, The Pawsey Supercomputing Research Centre

Since 2012, the Centre has relied on **two 12-frame Spectra Logic TFinity tape libraries** to store offline information. With combined capacity that can reach up to 397.8 petabytes, the system is a verifiable digital vault for some of the world's most important research.

As data demands evolve over time, Schlipalius has stayed focused on adopting innovative solutions designed to streamline workflows.

When Spectra Logic released the LumOS upgrade in 2024, a next-generation operating system for its tape libraries, Schlipalius saw an opportunity to improve how the Pawsey Supercomputing Research Centre manages storage costs and ever-expanding data volume. He made the upgrade.

LumOS performs three to four times faster than his previous system — a giant leap forward in responsiveness and performance.

Tape library tasks that once required manual interventions are now faster, automated, and more intuitive thanks to LumOS features such as multi-threaded operations, heightened communication with robotics, and flexible control from anywhere, be it local, remote, or programmatic.

The result?

Significant time savings for his system administrator.

"LumOS is paying back its expenditure in terms of reduced staff load," says Schlipalius, underscoring the importance of efficiency and affordability in a government-funded institution where every dollar — and every minute — counts.

Streamlined Technology Propels Scientific Research Forward

At Pawsey, innovation isn't just about new discoveries.

It's also about removing friction from the systems that support major scientific milestones.

For Schlipalius, that means:
- Faster tape library ticket resolution
- More reliable diagnostics
- Fewer parts to manage

In turn, this leads to a smoother, consistent flow of research data for institutions across Australia and beyond.

In an era where technological advancement is often paired with complexity, **LumOS offers elegant simplicity**. It amplifies what Schlipalius and his team do best: enabling the minds behind the data to keep pushing the boundaries of our collective knowledge.

"Spectra Logic tape libraries and technologies simply do what they say," says Schlipalius. "The future looks bright for LumOS."

Exterior of the Pawsey Supercomputing Research Centre in Australia.

Schedule a Demo of LumOS