

CASE STUDY

The ACCRE at Vanderbilt University expands capacity with Spectra T950 and BlackPearl



“Spectra Logic provided us with a highly scalable and cost-effective solution. The unsurpassed density of the T950, combined with BlackPearl’s object storage capabilities, provide seamless access to our growing content.”



Alan Tackett, Technical Director and Lead Developer, ACCRE

AT A GLANCE

Challenges

- Accommodating diverse user needs
- Meeting new CUI security standards
- Growing storage from 7PB to 10PB
- Supporting complex research data

Solution

- Upgrade to T950 Tape Library
- Deploy BlackPearl Platform
- Integrate certified clients/movers
- Collaborate with Teradactyl

CHALLENGE

The ACCRE cluster was designed to meet diverse user needs while allowing for future expansion. They faced challenges implementing a next-gen storage platform to meet new security requirements for Controlled Unclassified Information (CUI), aimed at protecting grant research data.

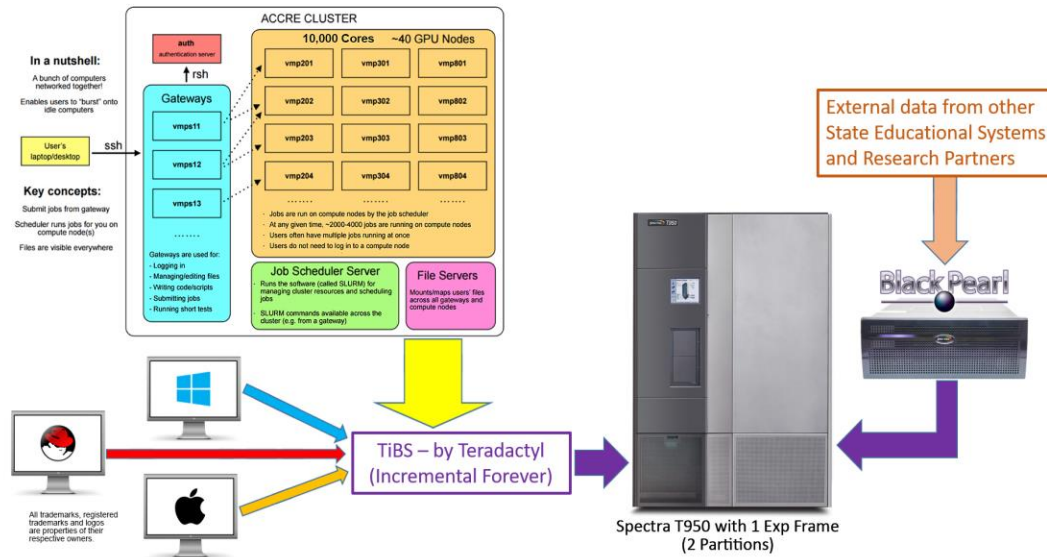
With plans to grow from 7PB to 10PB by 2018, and more by 2020, additional storage was essential. They needed to boost capacity and data protection for Vanderbilt's departments and external research partners, including collaborations with data-intensive projects like CERN and the Large Hadron Collider.

SOLUTION

ACCRE upgraded from an IBM® TS3500 tape library to a Spectra® T950 Tape Library with 11 LTO-8 drives and an extra media frame. They also deployed Spectra® BlackPearl® Hybrid Storage for direct end-user access to archival storage. BlackPearl combines NAS, Spectra’s S3 interface, and multiple storage targets into a simple, affordable solution. It eliminates the need for expensive third-party data movers by integrating Spectra S3 with certified clients and file movers.

Through a collaboration with Teradactyl®, ACCRE reduced annual storage operating costs by over 50%.





ACCRE at Vanderbilt University's Workflow

ACCRE AT VANDERBILT ENVIRONMENT

SOLUTION INFORMATION

About Spectra Enterprise Tape Libraries - Spectra enterprise tape libraries are designed for incremental growth, as they accommodate the storage requirements of organizations in every state of their growth lifecycle. When data growth requires more slots than the library's current capacity, Spectra transfers the components of the existing library and puts them in a larger chassis. As data needs expand, all that changes is the outgrown frame.

About BlackPearl - BlackPearl provides an object-based, hybrid storage platform that easily and cost effectively scales up as object and file volumes grow; adapts as operational requirements change; and enables easy synchronization of data between on-prem and cloud storage.

Why ACCRE Chose Spectra:

- Industry's highest density
- Scalability
- Reliability
- Affordability
- Broad feature set with object storage

ENVIRONMENT

- Spectra T950 Tape Library
- Eleven LTO-8 tape drives
- BlackPearl Hybrid Storage Platform
- LStore file system
- PteroStor™ Edition of Teradactyl True incremental Backup System (TiBS)
- cLuster Guard™ Backup appliances
- IBM Spectrum Scale

ABOUT ACCRE

The Advanced Computing Center for Research and Education is the premier resource for the high-performance computing (HPC) needs of research throughout Vanderbilt University. The 4,000 square foot facility is located on Vanderbilt's Peabody Campus and houses over 10,000 computational cores for research and 10PB of disk storage. The ACCRE networked computer cluster is used for research in a wide variety of fields, including genetics research, particle physics and astronomy. The cluster is maintained by roughly a dozen staff members who report to a faculty steering committee.

