



Digital Preservation for BioMedical Machine-Generated Data & Research

Life Science data sets are growing exponentially due to ever-expanding advances in biomedical research technology. Instruments such as electron microscopes, DNA sequencers and spectrometers, among hundreds of other instruments, create petabytes to exabytes of data per year. Once the data is collected, it is filtered, analyzed and shared. In all of these steps, the data must be safely and securely stored and archived.

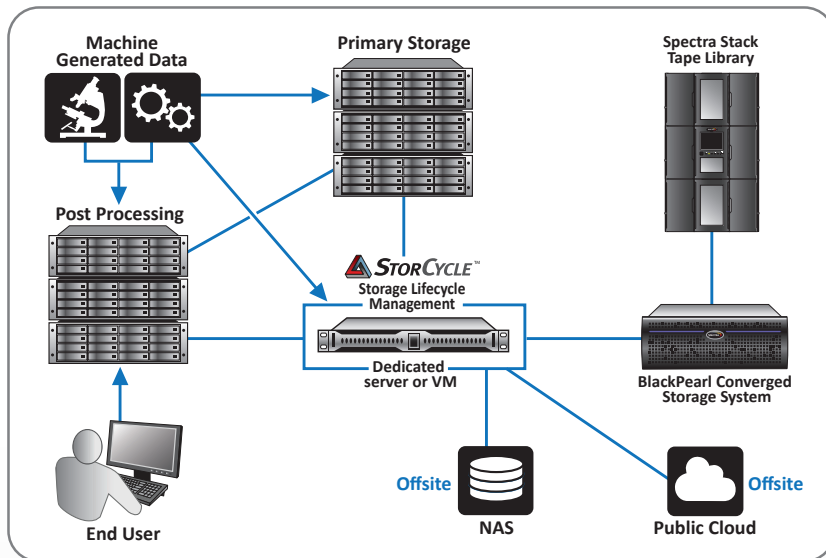
Spectra Logic works with many research universities and life science customers to build a seamless and cost-effective way to store multiple data workflows that can adhere to varying retention requirements.

Problems:

- Large amounts of data that should never be deleted
- Data cannot be recreated, so multiple copies must be made
- Research can take years or decades and data needs to be available
- Data must be shared with other groups or organizations
- Inactive data is taking up space on primary storage

Solution Description:

In an ideal environment, data will transfer to both scratch and backup simultaneously. Data is moved to an accessible tier of storage after a determined amount of time. Multiple copies can be made to ensure data is available and shareable if needed.

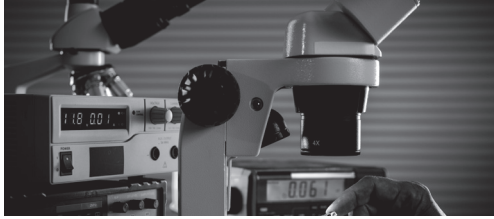


Key Benefits:

- Achieves unlimited scalability with disk and tape
- Complements primary storage with a perpetual storage tier, lowering overall cost of data ownership
- Monitors and migrates data intelligently across multiple storage devices and media types
- Maintains fast access for all users anywhere
- Provides a familiar interface to archived data
- Delivers open standard technology
- Makes a cloud copy easily for backup and disaster recovery

“ The agency must select a world-class infrastructure that meets global standards. Our Spectra Logic solution helps us preserve research data that is vital to increasing Korea’s science capacity, ensuring the means to create new knowledge from which significant societal transformations are derived.

– Research Assistant, Korean Science Agency

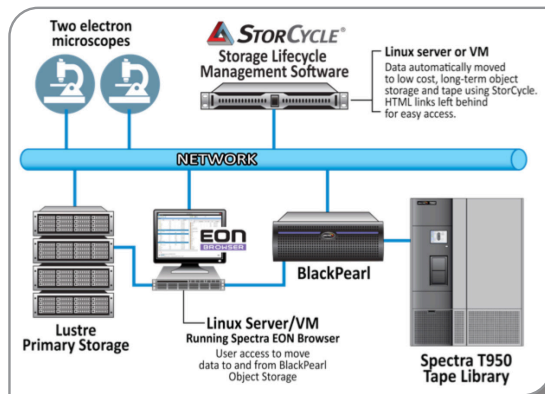
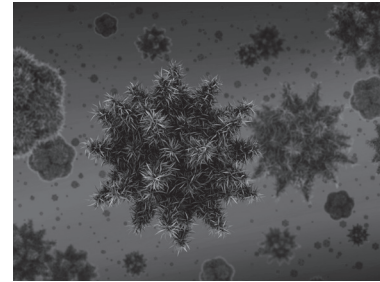


Use Cases

The Spectra solution easily fits into research facilities for HCS (High Content Screening), Neurobiology Miniscope, Flow Cytometry, Transgenic Animal, Genomics, Stem Cell and Protein Studies, and more.

“ Being a not-for-profit organization, OMRF has an especially strong emphasis on financial stewardship. The Spectra solution was a good fit. Not only in terms of financial considerations like affordability, product functionality and value for cost, but also because we like to engage in long-term relationships with our vendors, and Spectra has proven to be a trusted advisor when helping us solve our data storage challenges.

– Brent Keck, Chief Information Officer, OMRF



“ We have to store a lot of data for long periods of time. A single microscope can capture 10TB of data in as little as a few hours, and a published breakthrough on cancer research can take anywhere from a few years to a couple of decades. The BlackPearl® and tape solution from Spectra provides a scalable and cost-effective way to store multiple data workflows with varying retention requirements.

– Jeffrey McDonald, director of IT
Hormel Institute at University of Minnesota

“ Our storage needs double approximately every two years. Therefore, scalability is extremely important and with Spectra Logic’s libraries we know we can scale up with the simple addition of frames. We know our investment is protected and that our archiving and DR infrastructure will grow with us.

– Dean Flanders, CIO, FMI

