



CASE STUDY

Federal institute implements Spectra StorCycle software to protect and preserve public health data

“ When it comes to data storage, Federal organizations require additional security, reliability and protection to preserve sensitive information. With the help of Spectra’s products, this particular agency is able to defend their data from harm’s way by replicating copies and storing them on different media and at two different data center locations. ”

Nathan Thompson, CEO, Spectra Logic Corporation



Spectra StorCycle, T950 Tape Library and BlackPearl Converged Storage System



The Challenge

This federal institute, under the Department of Health and Human Services, is responsible for protecting public health and safety. The organization’s responsibilities include 24/7 response to natural and manmade disasters, discovering patterns of disease and delivering lifesaving medicines, educating citizens to take responsibility of their own health, and performing lab research to safely detect health threats and prevent premature death, injury and disease.

As a prominent research organization producing massive amounts of valuable data, protecting and preserving their data long-term is an important goal. They need to be able to automatically replicate their data and store it on numerous types of media, in multiple locations, for the purpose of disaster recovery. The institute also requires a system that enables them to archive files that they are no longer using, but provides access to them again quickly if needed.

The Solution

The institute was already an existing Spectra Logic customer. They had been operating two multi-frame Spectra® T950 Tape Libraries, and multiple other Spectra tape libraries around the country for more than a decade. Spectra Logic’s BlackPearl® Converged Storage System and BlackPearl Object Storage Disk were introduced to the storage environment in 2016, and expanded in 2018, to enable automated replication between storage sites. As a converged storage system, BlackPearl supports both object storage and Network Attached Storage (NAS) drives. The latter can be configured into standalone pools that are shared via CIFS or NFS. Data from the NAS data pools can be copied or moved into the object storage side of BlackPearl. The institute is currently utilizing BlackPearl to replicate data to two different sites, creating multiple copies, on different media at both locations.

More recently, the institute wanted to upgrade their solution to handle large SQL database files that have to be kept forever but are seldom accessed after four to six months. These take up valuable space on Primary Tier solid state disk and high-availability disk. They installed Spectra’s storage management software, StorCycle® with one instance in a test location, and the two other instances in production sites about 10 miles apart.



CASE STUDY: Federal Institute for Public Health and Safety

StorCycle is designed to automatically identify and move inactive data from primary storage to a lower cost tier that includes cloud, object storage disk, NAS and object storage tape. In each production instance, after these large database files have been pushed from the SQL servers to the BlackPearl NAS, StorCycle is used by the institute to automatically move any files that are over 30 days old to BlackPearl's object storage side, which in turn writes the data logs to a local Spectra tape library. The institute also plans on adding a Hitachi private cloud solution to manage high-performance computing data in their storage environment, to which StorCycle will copy data.

The complete solution allowed the institute to realize cost savings from day one, protecting their data long-term through disaster recovery strategies of geographic dispersal and genetic diversity. In the event of a natural disaster or data corruption, the institute can rest assured knowing that their data can be quickly recovered from another data center or piece of media.

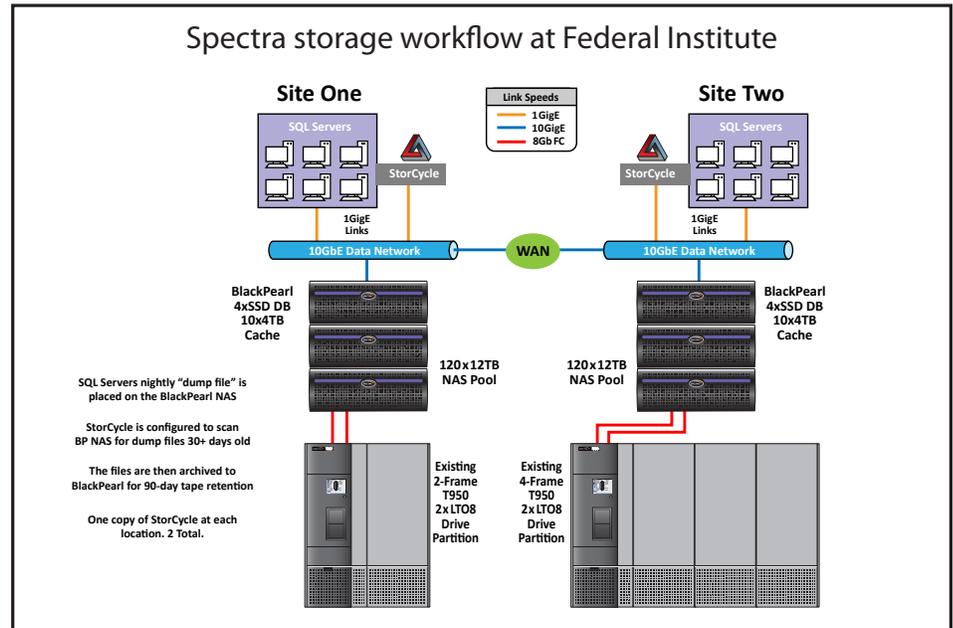
Environment Snapshot

- Spectra BlackPearl Converged Storage System with NAS data pools
- Spectra BlackPearl Object Storage Disk Solution
- Two Spectra T950 tape libraries
- Multiple other Spectra tape libraries around the country
- LTO-6, LTO-7 and LTO-8 tape drives and media
- Spectra BlueScale with standard encryption
- Hitachi private cloud solution
- Spectra StorCycle storage management software

Why Spectra?

- User accessibility and performance
- Disaster recovery
- Genetic diversity
- Open standard technology to prevent vendor lock-in
- Prior Spectra customer

Spectra storage workflow at Federal Institute



Solution Recap

Spectra BlackPearl Converged Storage System – BlackPearl was designed to provide a modern, simple portal to a multi-tier storage architecture and to break away from traditional and legacy solutions that are based on licensing models that drive greater cost when scaling. BlackPearl's simple RESTful API and integrated advanced bucket management (ABM) retains and manages organization's assets at very low per-gigabyte costs, enabling users to create a storage architecture that is cost effective, easy to manage and scalable to exabytes of data.

Spectra T950 Tape Library – The T950 library is designed and built to meet the stringent requirements of the enterprise for data integrity, data security and high reliability. The T950 reduces staff involvement significantly, affordably scales in capacity and throughput, and supports multiple generations of current and future tape formats. For data archive, backup and recovery, this elite library leads the field in innovation. From the greatest storage density to proactive media management, the T950 is always protecting your data.

Spectra BlackPearl Object Storage Disk

BlackPearl Object Storage Disk leverages the BlackPearl Converged Storage System's hybrid storage architecture to create the first object storage-based disk platform that delivers maximum longevity, efficiency, and cost effectiveness with the performance of online disk. BlackPearl Object Storage Disk creates an on-premise cloud with a Spectra S3 interface to make storage more accessible. It's spin-down disk technology intelligently powers down bands of storage when idle, extending the life of the disks up to 7 years.

Spectra StorCycle – StorCycle is a storage management software that automatically identifies and moves inactive data from primary storage to a lower cost tier that includes cloud, object storage disk, network-attached storage and object storage tape. Users can manually archive project-based directories and make additional copies for data protection. Providing seamless, familiar access and recovery of single files or entire projects, StorCycle enables organizations to manage, share and preserve their data for unparalleled long-term protection and access.