STORCYCLE™

Storage Management Software

More than 80 percent of data is being stored on the wrong tier of storage costing organizations millions of dollars a year.

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Spectra's StorCycle Storage Management Software is the answer to deploying a modern storage lifecycle management workflow. StorCycle can reduce the overall cost of storing data by up to 70 percent.

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Spectra's StorCycle was built specifically to identify inactive data that consumes expensive primary storage capacity. It then migrates identified data to a more affordable, protected tier of storage, while leaving the data fully accessible to users.

80%
of an organization's data is considered inactive, or rarely accessed, yet that data cannot be deleted.

70%
of overall storage cost can be reduced by implementing a StorCycle Solution.

Millions
of dollars a year are being spent on inefficient storage lifecycle management.

StorCycle™

A modern storage model for managing and storing data is here.

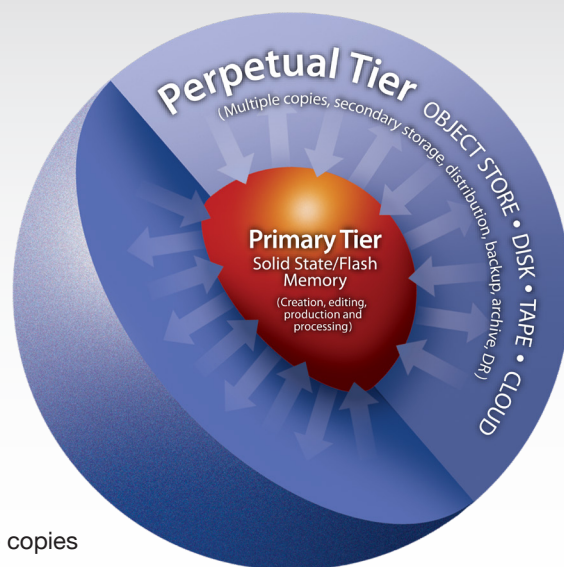**The new model consists of two tiers:**
The Primary Tier and the Perpetual Tier.

Data migrated via StorCycle is moved from the Primary Tier to the Perpetual Tier. The Primary Tier holds all active data and is most commonly comprised of flash, NVMe, DRAM, and high-performance disk drives, in order to achieve the performance required for workflows associated with highly active data.

The Perpetual Tier is dedicated to inactive data and is designed to keep multiple copies of data on multiple storage mediums including cloud, disk and tape.
The Perpetual Tier is used for secondary storage, distribution, backup, archive, and disaster recovery.
By reducing data on the high performance Primary Tier, organizations can configure the more economical Perpetual Tier to be as responsive as their workflows demand.
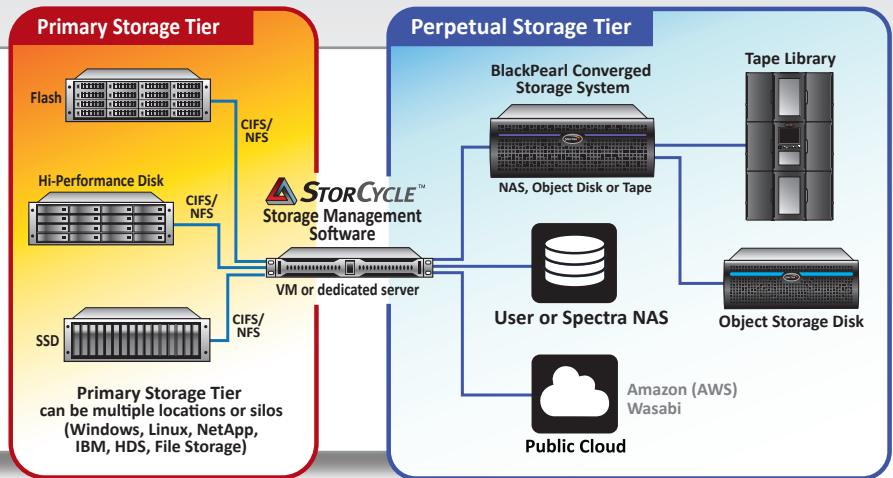
Perpetual Tier
(Multiple copies, secondary storage, distribution, backup, archive, DR)
OBJECT STORE • DISK • TAPE • CLOUD

Primary Tier
Solid State/Flash Memory
(Creation, editing, production and processing)

Is a Perpetual Storage Tier right for your organization?

Storage system filling up?	StorCycle migrates infrequently accessed files to eliminate capacity and performance constraints. This streamlines workflows, reduces software license costs and reduces hardware purchase and maintenance needs – while giving users and administrators full access to their data.
Continuing to add capacity to primary storage?	StorCycle leaves a user's access to primary storage unchanged so they can access their data in the same location as before. This extends their primary storage tier without the need to continue to add capacity.
Facing cloud mandates and initiatives?	StorCycle supports various workflows to allow organizations to better utilize the cloud as a part of the Perpetual Storage Tier. Data can also be copied or moved to the cloud for sharing with other groups and for use in cloud workflows such as transcoding and artificial intelligence (AI) tagging.
Wanting a flash-based primary tier?	Flash storage is a highly desirable storage technology, but it is expensive and must be used wisely. StorCycle ensures that only active data is being stored on expensive primary storage hardware, improving performance.
Backups taking too long and costing too much?	By reducing the capacity of the primary storage, you in turn reduce the backup size itself and the time needed to complete the backup, saving time and money. StorCycle shares storage resources with existing applications such as NetBackup, Veeam, Commvault and EMC.
How is data protected to ensure it is available when needed?	StorCycle software has an intimate knowledge of the storage on the backend and provides data protection through encryption on all targets, end-to-end checksum, and the ability to store multiple copies on multiple storage mediums supporting best practices in data storage.
How can data be protected from a disaster?	Ransomware, hackers, accidental deletion, and human error are only some of the reasons data can be compromised. StorCycle provides new copy management tools for offsite replication and disaster recovery to ensure data is always available.
Have project-oriented data?	StorCycle includes a project archive component which will help organizations store, track, manage and protect project data such as research data, raw video, finished projects, IoT data, semiconductor designs, architectural data, etc., thereby providing long-term protection of nearly any digital asset.
How responsive does your secondary storage need to be?	StorCycle not only seamlessly moves data from costlier primary storage, but also ensures that data is located on the right storage medium for optimum user access. Creating both a responsive and disaster recovery copy, StorCycle enables data in the perpetual tier to be as accessible as each workflow demands.

Primary Storage Tier

Flash

CIFS/NFS

Hi-Performance Disk

CIFS/NFS

StorCycle™
Storage Management Software

VM or dedicated server

SSD

CIFS/NFS

Primary Storage Tier
can be multiple locations or silos
(Windows, Linux, NetApp,
IBM, HDS, File Storage)

Perpetual Storage Tier

BlackPearl Converged Storage System

NAS, Object Disk or Tape

User or Spectra NAS

Amazon (AWS) Wasabi

Public Cloud

Tape Library

Object Storage Disk

StorCycle Activates Storage Lifecycle Management

Data value and access requirements vary greatly and usually change over the lifecycle of the data. Some data sets are actively accessed; some become inactive soon after creation; and others are rarely accessed once stored. StorCycle organizes the storage of data based on its frequency of access and value to an organization.

STORCYCLE™

1 Identify

Running out of Primary Tier storage? Want to move to a flash-based storage system, but have too much data? Backups taking too long? StorCycle solves these challenges with its ability to identify inactive data based on user-defined policies, and then migrate this data to a protected and less expensive Perpetual Tier of storage. StorCycle is capable of managing trillions of files in its database which is backed up daily.

2 Migrate

StorCycle software provides two basic methods of migrating data – Project Archive and Auto Migrate. The Project Archive method is for completed data sets which will change minimally, if at all, but cannot be deleted. The Auto Migrate method identifies inactive files based on user-defined age and size policies, and moves those files to the Perpetual Tier. The ability for StorCycle to easily identify and automatically migrate data off of primary storage to the Perpetual Storage Tier is invaluable - essentially extending production storage to provide limitless capacity at a fraction of the cost. StorCycle can be a standalone software product utilizing the cloud and user NAS, or paired with Spectra hardware to create a secure storage environment.
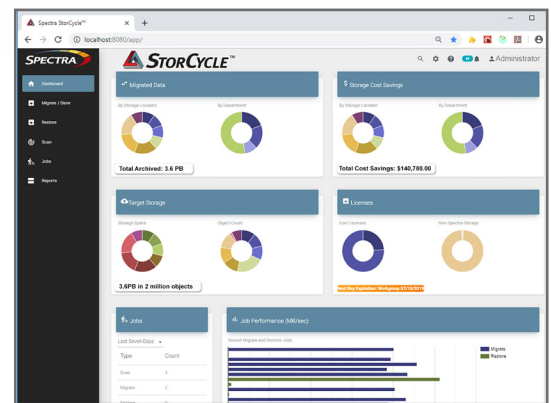
3 Protect

Cyberattack, ransomware, natural disaster or simple human error – any of these can destroy an organization's most valuable asset – its digital data. StorCycle software protects data through end-to-end checksums, encryption on all storage targets, and storage of multiple copies on multiple storage mediums. StorCycle is fully ADFS compliant meaning file permission will remain intact regardless of where data is stored. StorCycle enables organizational data to be stored in two geographically separate locations, e.g., cloud and local NAS or on-premise and remotely stored tape.
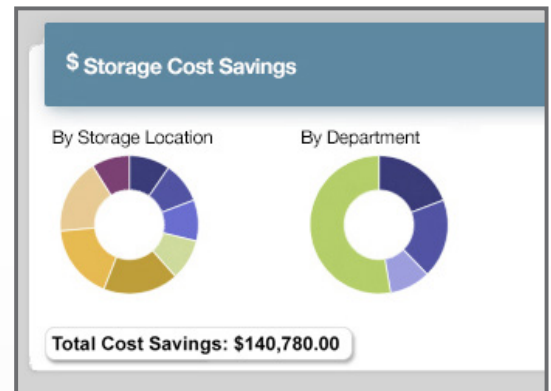
4 Access

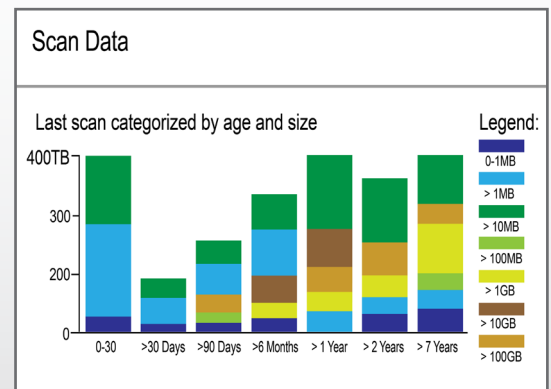StorCycle's unique ability to use HTML Links or Symbolic Links* assures quick and easy user access to data even after it has been migrated. StorCycle removes the file from primary storage leaving a link behind for access. IT administrators are able to free up valuable primary storage while users continue to access their data seamlessly. The user-friendly StorCycle web interface also includes a robust search interface to easily find and retrieve files. StorCycle stores data in open formats such as CIFS or NFS file systems, LTFS tape or published cloud formats.

*Available in V3.0 release

StorCycle main dashboard

StorCycle dashboard cost savings example

StorCycle data scan analysis example

StorCycle License Levels

Administrator	Workgroup	Datacenter	Enterprise
• Users – 3	• Users – 25	• Users – 100	• Users – Unlimited
• Spectra Storage targets – Unlimited	• Spectra Storage targets – Unlimited	• Spectra Storage targets – Unlimited	• Spectra Storage targets – Unlimited
• Free Cloud Out – 25TB	• Free Cloud Out – 50TB	• Free Cloud Out – 100TB	• Free Cloud Out – Unlimited
• Transparent Access[†] – Additional Charge	• Transparent Access[†] – Additional Charge	• Transparent Access[†] – Included	• Transparent Access[†] – Included
		• Scheduled Delete[†]	• Scheduled Delete[†]

Customer can use existing NAS as a storage target for StorCycle. StorCycle can be purchased as a permanent license or a subscription license.
[†] Available in V3.0 or later – features will be enabled for current customers under support when each new feature is released.

Server requirements

- 32 GB RAM
- 4 cores running at a minimum of 2.8GHz
- 500 GB System Disk
- 10 GbE network
- Recommend that customers use flash/SSD for the StorCycle server disk storage if they are going to group files into TAR or ZIP "Packs"
- When using packing, the StorCycle solution requires enough disk space for ten times the size of a pack (10 GB) or the largest file that will be migrated/stored in a pack, whichever is larger.

Perpetual Tier Storage Targets

Compatibility is essential when deploying a new storage solution, and StorCycle's Perpetual Tier of storage is no different. The storage targets integrated with StorCycle support all industry-standard operating systems and major backup applications, such as Commvault and Veeam, allowing users the ability run multiple applications and share their storage targets capacity with StorCycle.

StorCycle Use Cases

StorCycle is designed for organizations that elect to manage unstructured data and files by offloading inactive data to a lower cost tier of storage without sacrificing data availability. With a number of use cases ranging from IT storage offload, project archive, traditional archive, digital preservation of files, media, videos, and ransomware protection, StorCycle enables organizations to efficiently and cost effectively manage their data at scale.

StorCycle helps a number of different markets manage and protect their data including: • Research & scientific data • Engineering data • Genomics data • HPC • University IT • Email archiving (PST files) • Medical research – project and data archive • Video surveillance content • Computer simulation • Architectural drawing • Federal, state and local government data • Petroleum exploration and seismic data • Drug research and development • Legal retention hold • IT archival of laptops and data from departing employees • VM image archival • Digital camera video offloading • Chip development and lifecycle management • IoT data capture/storage/archival • Database archive (version, transaction log files) • Artifical intelligence (AI) data kept for training of algorithms

About Spectra Logic Corporation

Spectra Logic develops data storage solutions that solve the problem of long-term storage for business and technology professionals dealing with exponential data growth. Dedicated solely to storage innovation for 40 years, Spectra Logic's uncompromising product and customer focus is proven by the largest information users in multiple vertical markets globally. Spectra enables affordable, multi-decade data storage and access by creating new methods of managing information in all forms of storage — including archive, backup, cold storage, cloud and private cloud.

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