Spectra Logic Introduces LumOS Library Management Software with Two New Libraries

Next-generation LumOS software to power new TFinity Plus and Spectra Cube libraries

BOULDER, Colo. April 9, 2024 – Spectra Logic®, a global leader in data management and data storage solutions, today announced the introduction of Spectra® LumOS library management software and the addition of two members to its family of enterprise tape storage solutions. The new members are the TFinity® Plus enterprise library and Spectra Cube™ cloud-optimized library.

LumOS library management software is the advanced next-generation operating system for managing, monitoring and controlling Spectra tape libraries. Based on a modern, extensible architecture that delivers greater functionality, reliability and as much as 20X the performance of the previous generation of library management software, LumOS software is a foundational platform designed to enable Spectra to continuously extend the functionality and longevity of TFinity Plus and Spectra Cube libraries through future technology generations, into the next decade and beyond.

Key LumOS features include:

- An intuitive, feature-rich interface with secure local and remote access
- Multi-threaded operations to complete multiple tasks simultaneously
- Full REST API for automation of all library functions including software upgrades
- Regular vulnerability-tested updates incorporating all security patches
- Integrated partitioning for shared or multi-tenant environments
- Capacity-on-Demand (CoD) for dynamic addition of media slots
- AES-256 encryption and key management for LTO drive-based encryption
- Library and drive lifecycle management to predict and help prevent failures
- Automatic drive cleaning for error reduction and extended drive life
- Media lifecycle management and data integrity verification[1]
- Proactive monitoring and diagnostics with email notification and automatic support ticketing

TFinity Plus Enterprise Library
The new Spectra TFinity Plus library builds upon the proven capabilities of the venerable Spectra TFinity® ExaScale library to deliver the next level of performance, reliability and scalability.

TFinity Plus features include a powerful new library control module and a high-resolution color touchscreen specifically designed to support LumOS library management software. The new library incorporates all current TFinity ExaScale features, including its unique tri-media capability to intermix LTO, IBM TS11xx and Oracle T10000 tape technology within a single system.

For greater flexibility and throughput, TFinity Plus libraries support up to 168 drives, a 24-drive increase over the TFinity ExaScale library. Supported drive interfaces include Fibre Channel and SAS, while optional Ethernet-to-SAS bridges can eliminate the need for dedicated storage area network connections, significantly reducing cost and complexity.

To maximize mount performance, the new TFinity Plus library leverages a combination of proven Spectra high-performance robotic transporters, TeraPack® magazines and LumOS software to deliver the highest tape move and exchange rate of any available library.

The new TFinity Plus library is the world's largest tape storage system, capable of storing 2.2 exabytes (EB) of uncompressed data and as much as 6.4 EB of compressed data, with a maximum native throughput of 242 terabytes (TB) per hour. For compressed data, throughput is as much as 544 TB per hour.

TFinity Plus Field Upgrades

To extend useful service life and take advantage of new features and technology, any existing TFinity or TFinity ExaScale library can be field upgraded to support LumOS library management software. Upon upgrade, these systems will be functionally identical to the new TFinity Plus enterprise library and will receive an emblem identifying them as fully supported TFinity Plus systems.

Spectra Cube Cloud-Optimized Library

Designed for clouds and optimized for ease of use, the new Spectra Cube library can be quickly deployed, dynamically scaled and easily serviced without tools or downtime. The Spectra Cube library offers up to 30 petabytes (PB) of native capacity, with a maximum compressed capacity of 75 PB. Up to 16 full-height or 30 half-height LTO tape drives may be intermixed, delivering a maximum native throughput of 32 TB per hour. Supported LTO technology generations include LTO-6, LTO-7, LTO-8 and LTO-9. For shared or multi-tenant environments, the library supports up to 16 partitions.

For more information about the Spectra Cube library, please refer to our full press release or visit www.spectralogic.com/spectra-cube.

Modern Object-Based Tape Application Support

TFinity Plus and Spectra Cube libraries fully support modern backup and archive applications through seamless integration with Spectra BlackPearl® file and object storage systems to create highly cost-effective on-premises or hybrid cloud object-based tape tiers. Amazon S3 and Amazon S3 Glacier API access is fully supported.

Additionally, more than 30 custom integrations with media asset and production asset managers are available along with validated solutions for integration with object storage environments such as NetApp StorageGRID.

"While innovations associated with primary storage performance capabilities frequently dominate HPC storage-related investments and headlines, tape storage is becoming an increasingly critical element of leading data center storage architectures. Market forces driving the resurgence of tape storage include massive data growth from complex traditional HPC and modern AI workloads, escalating cloud storage costs, and increasing threats of ransomware attacks," said Mark Nossokoff, research director at Hyperion Research. "Offerings like Spectra's new libraries, management software, and object-based tape solutions aim to make it easier to integrate tape into today's modern computing environments, lower storage costs, and enhance the security of an organization's high-value data."

Lifetime-Guaranteed Spectra Certified Media

To ensure the utmost reliability and extend the longevity of tape media, Spectra recommends the use of lifetime-guaranteed Spectra Certified Media with all its libraries.

When using Spectra Certified Media, Spectra libraries[1] actively monitor tape health and usage, recording more than 40 metrics for each tape during its lifespan to aid in predicting, assessing and minimizing errors. Additionally, regular data integrity verification checks are automatically conducted to detect media errors, reducing the risk of data corruption or loss.

Every Spectra Certified Media cartridge is pre-cleaned using a patented CarbideClean process to ensure media is debris-free, reducing errors and extending tape head life. Certified Media cartridges also come with pre-applied standard or custom barcodes for efficient tracking.

Spectra Certified LTO-9 cartridges are pre-calibrated for immediate use, optimizing data placement and saving up to 30 minutes per cartridge of initialization time.

For convenience, Certified Media cartridges may be delivered pre-packed into TeraPack magazines for easy bulk loading or offsite storage, with optional dust covers for added protection during storage.

Specifications, Pricing & Availability
Complete specifications for the TFinity Plus library are available at www.spectralogic.com/tfinity. TFinity Plus libraries are available to order now with initial shipments in April. TFinity Plus field upgrades are available to order now with a 30-day delivery lead time.

Complete specifications for the Spectra Cube library are available at www.spectralogic.com/spectra-cube. Spectra Cube libraries are available to order now with a 30-day delivery lead time.

Configuration and pricing information is available upon request. For inquiries, please visit www.spectralogic.com/contact.

About Spectra Logic
Spectra Logic modernizes IT infrastructures to preserve, protect and defend data, from days to decades, whether on-premises, in a single cloud, across multiple clouds or in all locations at once. Our cost-effective solutions help organizations efficiently manage, migrate and store long-term data, from terabytes to exabytes, with features that make it ransomware resilient. To learn more, visit www.spectralogic.com.

[1] TFinity® ExaScale, TFinity Plus, T950 and Spectra Cube libraries only.

BlackPearl, Spectra, Spectra Cube, Spectra Logic, TeraPack and TFinity are trademarks or registered trademarks of Spectra Logic Corporation. All other trademarks and registered trademarks are properties of their respective owners.

Follow Spectra Logic on social media:
X: @spectralogic
Facebook: https://www.facebook.com/spectralogic
LinkedIn: https://www.linkedin.com/company/spectra-logic
Instagram: @spectralogic

# # #