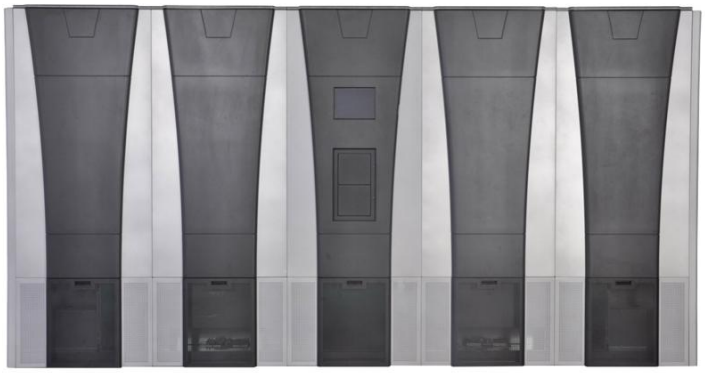
HPE GreenLake

Spectra TFinity ExaScale Tape Library

Tape Libraries



What's new

- Support for LTO-9 drives.
- Increased maximum LTO slot count to 56,400.
- Increased maximum TS11xx slot count to 42,930.
- Increased maximum frame count to 45.
- Non-isolation service bays.
- Support for Spectra SWARM for HPE.

Overview

Does your data storage capacity outstrip your backup, disaster recovery, and archive capability?

The Spectra TFinity ExaScale Tape Library delivers up to 2.53 exabytes (EB) of proven storage density packaged in a small footprint and offers scalability and speed to meet the requirements of the most demanding environments. Additional flexibility is provided through support of mixed media, both Linear Tape-Open (LTO) Technology and TS11xx technology, in the same library. Customers can also access and migrate data from legacy Oracle® T10000 media to both technologies. Using LTO technology, it can expand from 50 to 56,400 slots

for 2.5 EB of compressed data. Using TS1160 technology, the library can expand from 45 to 42,930 slots for 2.15 EB of compressed data. The tape library can support up to 144 drives with transfer rates of 207.4 TB/hr (518 TB/hr compressed) using LTO-9 or support up to 144 drives with transfer rates of 207.4 TB/hr (518 TB/hr compressed) using TS1160 technology.

Features

High Performance

The Spectra TFinity ExaScale Tape Library is built with high-performance, automated tape technology. From robotics, to drives, to software, to media, performance innovations are included in these libraries.

The transporter has been designed with goals of performance and reliability. These are accomplished by reduced cycle time and tape mount time (better performance) as well as increased mean time between failures (better reliability).

With LTO-9 technology, at maximum drive configuration, transfer data at rates up to 207.4 TB per hour (518 TB per hour compressed). With TS1160 technology, at maximum drive configuration, transfer data at rates up to 207.4 TB per hour (466.6 TB per hour compressed).

Time-Based Access Ordering System (TAOS) speeds up overall recall time and reduces wear by intelligently reordering individual recalls for media and drives.Zoning allocates a library territory for each robot to achieve greater performance as the two robots move media freely within the library.

Option of non-isolation service bays are available so that when a robot has a failure, it moves to the far right or left of the library. The other robot takes over any requested move operations.

High Capacity

When data center real estate counts, Spectra TFinity ExaScale Tape Library offers you incredible storage density and one of the smallest footprints through a unique and highly efficient library design built to fit into a standard rack-row layout for additional storage capacity in less floor space.

Using innovative shelves instead of slots and TeraPack containers in place of individual cartridges, the Spectra TFinity ExaScale Tape Library density uses less floor space.

Only buy what you need today and add storage capacity as you need it. Upgrade capacity in intervals of 10 LTO or 9 enterprise tape slots at a time. Tape consolidation through capacity, performance, partitioning, and reporting results in a lower total cost of ownership.

With LTO-9 technology, you can store 2.5 EB of compressed data at the maximum slot configuration, with 50 to 56,400 slots and 1 to 144 drives.

With TS1160 technology, you can store 2.14 EB of compressed data at the maximum slot configuration, with 45 to 42,930 slots and 1 to 144 drives.

Built-in Flexibility

Spectra TFinity ExaScale Tape Libraries can support both LTO and TS11xx tape technologies in the same library. Users can actively write and restore data from both technologies while having the ability to access and migrate data from legacy Oracle T10000 media.

Empty TeraPacks provide a means to import tape media, already written with data, into a new library for continued use or migration. TeraPacks provide additional storage outside the library.

Thin provisioning helps optimize the available storage in the partitions of a tape library. Administrators can change the size of a partition, without reconfiguring

the entire library. It provides virtual storage capacity for simplified administration, reduced downtime, and lowered costs.

Custom decorative panels, enable customers to brand their data centers and the Spectra TFinity ExaScale Tape Library. Customers can graphically customize the panels in nearly any way they would like.

High Reliability

Spectra TFinity ExaScale Tape Library includes a redundant dual robotic infrastructure, that not only provides for a failover solution, but also boosts the working ability. All the parts and pieces have been carefully crafted and integrated for increased reliability.

The library offers a sophisticated suite of standard features, allowing you to actively check data already written to tape. Data integrity verification examines media health before and after data writes, when enabled. Integrated BlueScale Encryption provides automatic data protection.

PreScan checks imported tapes to verify that they can be safely written to. QuickScan checks tapes unidirectionally to provide a fast indicator of written data integrity. FullScan checks for media errors on the entire tape. All features are now available for both LTO and TS1160 technology.

The library provides a high-level of encryption security to offer strong backup data privacy to deliver confidential information and address compliance quickly. Also, it supports WORM media (using LTO-9, LTO-8, LTO-7, or LTO-6) providing a fail-safe method for permanently storing data records.

By using the new Spectra SWARM for HPE Ethernet to SAS bridge in an Spectra TFinity ExaScale Tape Library, there is now an option for connecting LTO drives over an Ethernet interface from a host.

Technical specifications — Spectra TFinity ExaScale Tape Library

Drive type	LTO-9, LTO-8, LTO-7, LTO-6, TS1160, TS1150, TS1155, 144 drives, maximum supported
Capacity	2.14 EB compressed 2.5:1, maximum using TS1160 technology 2.5 EB compressed 2.5:1, maximum using LTO-9 technology
Host interface	LTO-9 8 Gb Fibre Channel and 12Gb SAS TS1160 16 Gb Fibre Channel and 12 Gb SAS
Transfer rate	518.4 TB/h compressed, maximum using TS1160 technology 518.4 TB/h compressed, maximum using LTO-9 technology
Number of cartridge slots	42,930 slots, maximum supported using TS technology 56,400 slots, maximum supported using LTO Ultrium
Encryption capability	Hardware-based encryption through Enterprise Secure Key Manager (ESKM), BlueScale Professional Encryption (LTO only), and Spectra Security Lifecycle Manager (SKLM)
Form factor	29 inch, 42U free-standing frame, maximum of 45
Product Dimensions (metric)	208.3 cm x 73.7 cm x 109.9 cm
Weight	372 kg
Warranty	1-year parts, 1-year labor, 1-year onsite support coverage, for more warranty information refer to: http://h20564.www2.hpe.com/hpsc/wc/public/home.

For additional technical information, available models and options, please reference the QuickSpecs

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