

Mid-Range Libraries The Right Way to Scale

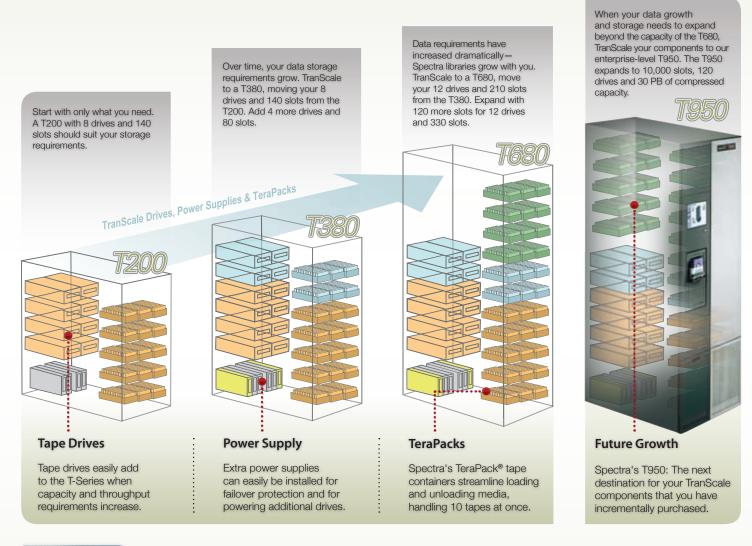
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Designed for incremental growth, Spectra T-Series Mid-Range libraries accommodate the storage requirements of organizations in every stage of their growth lifecycle. When your storage requires more slots than your library's current capacity, there's no need to buy a whole new library. By investing in a Spectra T-Series Mid-Range library, all you need to change is your outgrown frame. Spectra transfers the components in your existing Mid-Range library and puts them into a larger chassis. You even have the same serial number/asset tag for the library that you've always had. Upgrading is also EASY and FAST—you can switch between models in less than half a day. The TranScale® architecture eliminates the need for realignment, host/server reconfiguration, serial number changes, world-wide name changes and switch rezoning.

Preserve your storage investment with TranScale

Data growth is endless and cost-effectively scaling storage is becoming a top priority for businesses and operations worldwide. Keeping up with unpredictable data growth is a daunting task. Organizations want to avoid making capital investments in storage that are far beyond their short-term capacity requirements, yet they must be prepared for the unexpected. Designed with your growth in mind, Spectra TranScale has been developed to preserve your initial investment in storage by providing a solution that addresses both your short-term and long-term storage needs. Spectra uses TranScale in our T-Series Mid-Range libraries by interchanging the expensive components between the T200, T380 and T680 libraries. As you grow, you continue to use your original tape drives, power supplies, TeraPacks and media in your new library. The frame is the only major component that changes when you are ready to upgrade to a larger T-Series library. TranScale provides a cost-effective lifetime investment in storage, allowing you to scale your hardware and software to make your capacity upgrades quick, seamless and affordable.



Simplified Management

BlueScale, the common software interface for all Spectra libraries, brings enterprise command and control features to the T-Series Mid-Range libraries. Available through the library's on-board LCD color touchscreen and remote web access, BlueScale is an easyto-navigate, browser-based library interface built into Spectra libraries that enables our solutions to work easily, flexibly and safely with your data.

A single BlueScale® user interface manages an entire library without any external servers. BlueScale manages your library, configurations, partitions, encryption key management and all library/media health monitoring. By consolidating all management functions in a single library, you save time managing the library and lower costs by eliminating the need for additional equipment, software license charges or additional power or cooling requirements of extra server hardware.

Spectra T-Series Mid-Range libraries offer encryption and key management as seamless, integrated standard features. Spectra's BlueScale Encryption utilizes AES-256 bit encryption through the library for LTO-4 and higher drives. It lets you seamlessly and affordably add encryption to your backup strategy, with no changes to backup policies and no additional hardware or software.

Complete Lifecycle Management (2)







For highly reliable tape archive and backup, Spectra T-Series tracks and reports the expected lifetime utilization thresholds for tape media, drives and library components. With advance notification, you can address any potential concerns about the critical components of your entire library before they become an operational issue.

To ensure the viability of your data, Media Lifecycle Management (MLM) tracks and reports on health and security related statistics for Spectra Certified Media. Detailed reporting mitigates media problems and restore issues, allowing you to copy and move your data onto new media before degraded media affects your data.

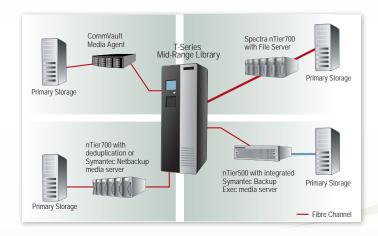
For further integrity, MLM PreScan tape verification ensures that newly imported tapes are in good health and ready to use. After writing, MLM PostScan tape verification assures that your data is available on the tape by confirming there are no media errors.

Like MLM, Drive Lifecycle Management (DLM) extends the same proactive approach to drives by integrating tape drive analysis and reporting within the library. Using easy-to-manage, color-coded icons, you can quickly identify the health status of a drive. DLM also offers easy-to-use tape drive diagnostics to test and verify drive health and operation.

Managing the health of your library's critical components is made easy with Library Lifecycle Management (LLM). By delivering utilization metrics relative to the expected useful life of library robotics, filters and other critical components; you are able to service your library before issues occur.

Consolidate Data

Using Integrated Partitioning



With support for multiple connectivity protocols as well as all major backup software packages and operating systems, Spectra T-Series fits easily into any environment. BlueScale's Shared Library Services lets data centers implement simple, integrated partitioning so that a single library appears to the SAN as multiple libraries. Unlike other partitioning solutions that involve complicated and expensive external partitioning servers, network connections, and proprietary client software, you can easily partition your library using its BlueScale interface.

Assisted Self-Maintenance (ASM)

An industry-first support supplement designed for customers requiring minimal downtime. ASM stocks a select group of customer replaceable parts at your site, giving you the ability to make immediate repairs and eliminate the delays that a site visit can involve.









Drive

Power Supply

Robotics

I/O Blade (RIM)

Our Assisted Self Maintenance feature enables you to replace select parts yourself.

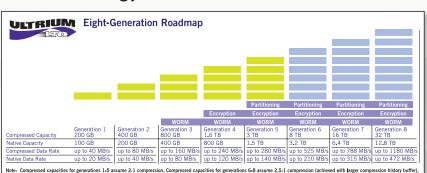
SpectraGuard Support

Support for Spectra T-Series Mid-Range libraries ranges from our standard worldwide next business day replacement to more advanced alternatives, including next day, same day, four-hour onsite service or our exclusive Assisted Self-Maintenance option.

Our expertise comes from over 30 years of solving real problems with hands-on lab work and on-site technical support. Our support staff is cross-trained over the entire storage environment—not just hardware—so we can assist you with all aspects of a problem. From open to close, we are committed to resolving any issue.



LTO Technology...



LTO (Linear Tape-Open) Ultrium Technology is optimized for high capacity and performance with exceptional reliability in either a stand-alone or an automated environment. It uses a single reel cartridge to maximize capacity. Ideally suited for backup, restore, and archive applications, the LTO tape format establishes a new benchmark for large volume backup and archive. LTO technology will meet the needs of the enterprise through a single-server user with a roadmap and migration path that extends well into the next decade.

Product Specifications

ı		Capacity and Throughput						
I	Vlodel	Max Cartridges	Max Drives	Media	Max Capacity*	Max Throughput*		
	T200	200	8	LTO-5	600 TB	8.1 TB/hr		
				LTO-4	320 TB	6.9 TB/hr		
	T380	380	12	LTO-5	1.1 PB	12.1 TB/hr		
				LTO-4	608 TB	10.4 TB/hr		
	T680	680	12	LTO-5	2.0 PB	12.1 TB/hr		
				LTO-4	1.1 PB	10.4 TB/hr		

Power Requirements

- 110-240 VAC; 13.6 AMP @110; 6.25 AMP @ 240
- Optional 2N
- Heat Dissipation: 2,391 BTU/h (12 drives)

Interface Options

- Fibre Channel 4 GB/s and 8GB/s Reliability Stats
- Mean Cycle Between Failures (MCBF): 1,000,000
- Mean Time Between Failures (MTBF): 250,000 power-on hrs.
- Mean Time to Repair (MTTR):
 - 3 minutes for hot-swap components
 - 30 minutes average for non-hotswap components

* Values calculated	using 2:1	data	compression
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Physical Characteristics					
Model Dimensions & Weight					
T200	Rack mountable with standard 19" rack - 20U Single Frame Dimensions: H: 35" W: 17.5" D: 40.5" (20U, 89cm H x 44.4cm W x 104cm D) Weight: 185 lbs (Base frame, no drives or media*)				
T380	Rack mountable with standard 19" rack - 28U Single Frame Dimensions: H: 49" W: 17.5" D: 40.5" (28U, 125cm H x 44.4cm W x 104cm D) Weight: 250 lbs (Base frame, no drives or media*)				
T680	Standard 19" rack included - 42U Single Frame Dimensions: H: 73.5" W: 17.5" D: 40.5" (42U, 204.5cm H x 61cm W x 122cm D)				



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