



Changing The World of Storage

*T200, T380, T680 Libraries
The Right Way to Scale*









SPECTRALOGIC.COM

Designed for mid-range growth and scalability: The Spectra® T200, T380 and T680 Libraries

The Spectra mid-range T-Series libraries are engineered, from the ground up, to preserve your initial investment in storage. Investment protection is realized by utilizing components which are interchangeable between the T200, T380 and T680 libraries, allowing you to seamlessly scale (TranScale™) between libraries as your organization grows. Integrating both tape and disk, Spectra's industry-first TranScalable™ architecture is designed with your growth in mind and will meet your future capacity and feature needs.



TeraPack® cases allow for unmatched storage density and reduce media handling by 90%.

- Industry-leading storage density 
- Integrated partitioning and mixed media 
- Tape and mobile disk/VTL support 
- Assisted Self Maintenance 
- Low power usage and monitoring 
- Local and remote management 



- TranScalable 
- Integrated encryption and key management 
- Proactive diagnostics and monitoring 

Energy-Efficient Storage

Spectra's T-Series libraries are engineered for optimal energy efficiency. By using innovative TeraPack containers stored in horizontal shelves, the T-Series components operate in a smaller space. The result of our design is a highly dense storage unit that consumes less power and provides you with an environmentally-friendly storage solution.

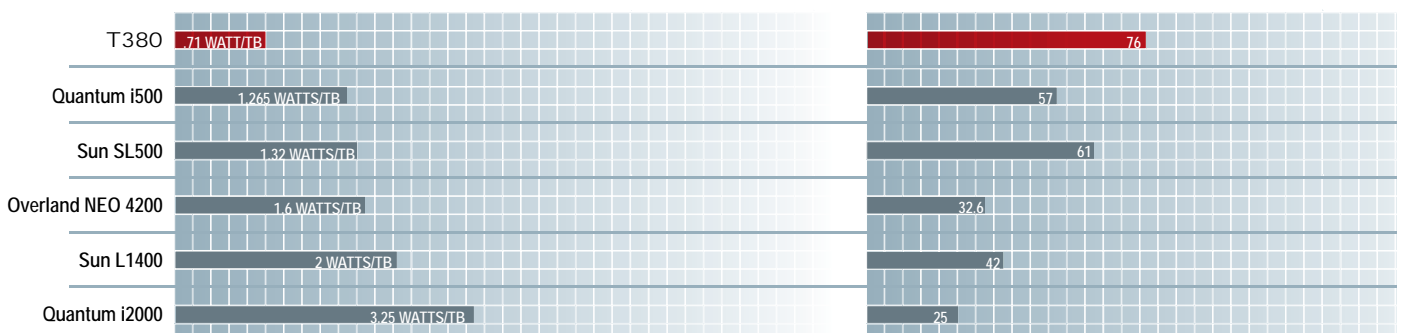
With more power-centric features than any other comparable solution on the market, the T-Series also includes tools to track your power usage. Our patented BlueScale EnergyAudit™ feature allows you to display and record actual power consumption giving you greater control of your data center and budget.



EFFICIENCY COMPARISONS :

Total power consumption per TB protected

Number of tapes per square foot of data center space

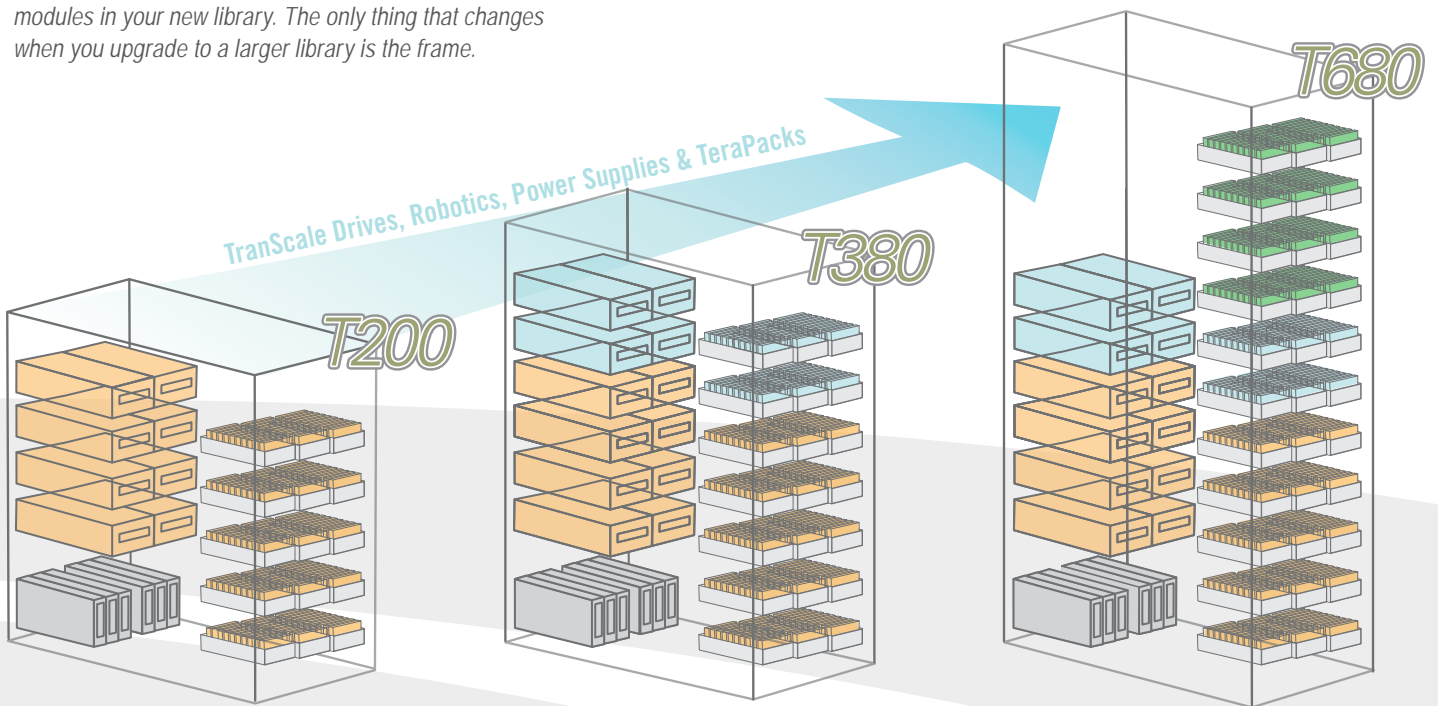


Mid-range tape library grows as you grow

Designed for incremental growth, the T-Series accommodates the storage requirements of organizations in every stage of their growth lifecycle. When your growth requires more slots than your library's current capacity, there's no need to buy a whole new library. Spectra re-uses the components in your existing T-Series library and puts them in a larger chassis. By investing in a Spectra T-Series mid-range library — as your data needs expand, all you change is your outgrown frame; you even have the same serial number (upon USB export)/asset tag for the library that you've always had. Upgrading is EASY and FAST—you can switch between models in less than 1/2 a day — guaranteed. TranScaling™ eliminates the need for realignment, host/server reconfiguration, serial number changes, world-wide name changes, and switch rezoning.

Preserve your investment with the TranScale architecture

Spectra uses the concept of TranScale to indicate that the expensive components of the T200, the T380 and the T680 are all inter-changeable. As you go, you continue to use your original tape drives, power supplies, robotics, TeraPacks, media, and control modules in your new library. The only thing that changes when you upgrade to a larger library is the frame.



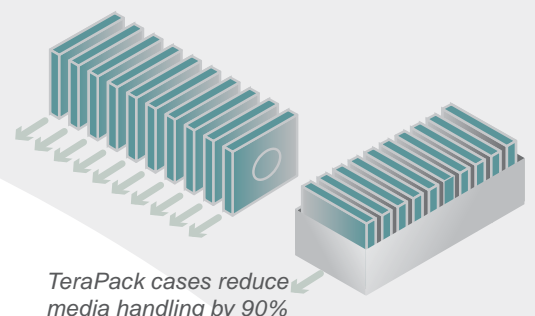
TranScale key components from one library to another. Start small, buy a T200 with 8 drives and 150 slots.

Over time, your data storage requirements grow. Buy a T380, move your 8 drives and 150 slots from the T200. Add 4 more drives and 60 slots.

Data requirements have increased dramatically. But, Spectra libraries grow with you. Buy a T680, move your 12 drives and 210 slots from the T380. Expand with 120 more slots for 12 drives and 330 slots.

Reduce staff involvement with Spectra TeraPack® technology

Handling and managing the hundreds of tapes storing your data is a chronic data center problem. Spectra T-Series libraries introduce a straightforward solution: TeraPack cases, each holding multiple tapes, yet treated as a single, movable and removable unit. TeraPacks automatically reduce time spent handling media by up to 90 percent. Users can load 100 LTO tapes (10 TeraPacks) in under three minutes compared to an hour or more loading 100 tapes in competing libraries. TeraPacks help not only to reduce tape handling time, they also guarantee that enterprises can increase their slot count in smaller, (10 slots) increments through Capacity on Demand (CoD).



Support when, where, and how you want it

Support options for the Spectra T-Series range from the expected 24x7 worldwide on-site support to more advanced options. These include self-monitoring and automatic e-mail notification of issues, and a unique Assisted Self-Maintenance option that eliminates the delay that a site visit can involve. You can also take advantage of Spectra AutoSupport which proactively and immediately alerts you and SpectraGuard technical support of maintenance requirements and even impending problems. By proactively monitoring library status, Spectra Logic can head off trouble before it has an operational impact.

Assisted Self-Maintenance (ASM) is an industry-first support supplement that is designed for customers that require minimal downtime. ASM allows for a select group of parts to be stocked at the customer's site, in turn allowing the customer to make immediate repairs when needed, eliminating the delays that a site visit can involve.



DRIVE



POWER SUPPLY



ROBOTICS



I/O BLADE (QIP)

Our Assisted Self Maintenance (ASM) feature enables you to replace select parts yourself, eliminating downtime waiting for a service technician.

Easy to use and manage

The T-Series is managed through Spectra's innovative BlueScale 10 software interface, accessible through the library's color touchscreen front panel or remotely using a Web browser. This interface is consistent across the entire T-Series product line, allowing you to manage 10 to 10,050 tapes, disk and encryption, across your enterprise, from the data center to satellite offices.



nTier500

The nTier Family is designed to integrate seamlessly with T-series tape libraries. nTier servers provide an integrated, flexible, and powerful platform for all your backup and archive application and storage needs.

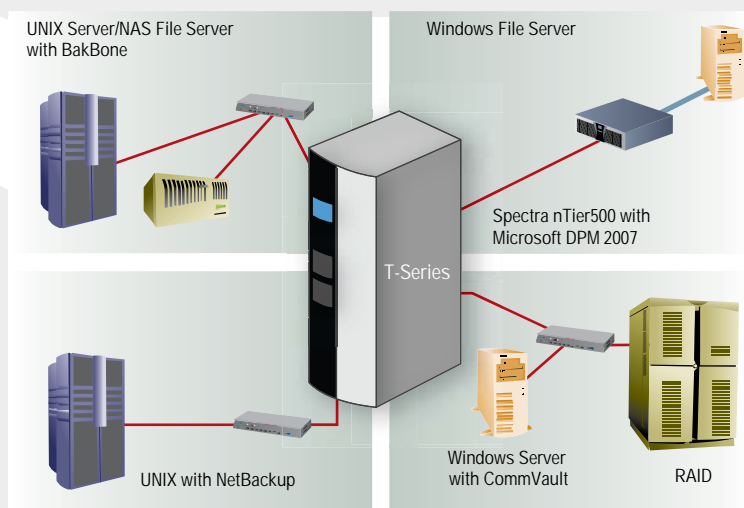
Multiple media

A single T-Series platform simultaneously supplies multiple tiers of storage to meet Information Lifecycle Management (ILM) strategies. Using multiple partitions through Shared Library Services (SLS) Virtualization, one library can support multiple types of disk or tape-based media: SDLT¹, SAIT, LTO-2 through LTO-4, RXT VTL, and disk-based TeraPacks designed to fit inside the T-Series libraries. By adding an external rack-mounted nTier500 or nTier700 alongside the T-Series library, the platform easily supports Disk to Disk (D2D) and Disk to Disk to Tape (D2D2T) strategies for effective, efficient data migration through ILM.



nTier700

¹ SDLT available for low duty-cycle applications only



— Gigabit Ethernet
— Fibre Channel

Consolidate data using integrated partitioning

Shared Library Services (SLS) Virtualization lets data centers implement simple, integrated partitioning, so that a single library appears to the network 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 the T-Series libraries using the BlueScale interface.



Integrated inside the library just like tape, RXT VTL drives write to media that consists of multiple SATA RAID disks sealed in a rugged enclosure.

ADD RXT DISK BENEFITS QUICKLY AND SIMPLY

- Enterprise-level high speed library backup, archive and information retrieval
- Ultra high reliability with fault-tolerant SATA disk-based media
- Full tape emulation for transparent integration with backup, archive, video, and HSM applications
- Variety of media options including RAID 0, RAID 1 and RAID 5
- Media capacities of 1TB, 1.2TB, 2TB, and higher as SATA disk capacities grow
- Fibre channel, iSCSI and SCSI interface/connectivity options

Just add disk: VTL capabilities built-in

An extraordinary capability of the Spectra T-Series is the simple addition of VTL to your data protection strategy. RXT® VTL drives and media make adding VTL as easy as adding a standard tape drive. The difference being that RXT drives write data to portable RXT media which consist of disks, but can still be moved out of the library and off-site as easily as tape.

With the unique design of the T-Series, VTL, tape backup and encryption can be managed through a single interface, within a single unit.

To truly protect backed up data, encrypt it: BlueScale Encryption and Key Management

The Spectra T200, T380 and T680 offer encryption and key management as seamlessly integrated standard features. Spectra's BlueScale Encryption utilizes AES-256 bit encryption through the library or LTO-4 drives. Compression, encryption and key management are included for all supported media types including: RXT VTL, LTO-4, LTO-3, LTO-2, SAIT and SDLT.

BlueScale Encryption simplifies key management by offering multiple levels of security choices to meet organizations' needs. Keys can be stored locally or remotely and can be shared between Spectra libraries. Set up BlueScale Encryption and Key Management quickly and easily to begin encrypting data seamlessly without requiring any changes to the backup environment or policies.

START ENCRYPTING YOUR DATA IN FOUR EASY STEPS

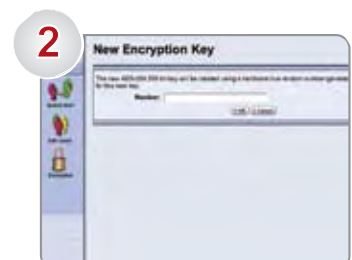


BlueScale Encryption software and more importantly, simple key management tools—are both crucial to St. John's Hospital for HIPAA requirements and easy IT administration.

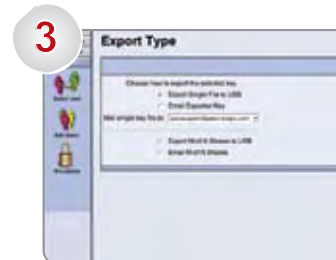
Chad Goldhammer,
Network facilitator at St. John's Hospital



Step 1: Create an encryption user



Step 2: Create an encryption key



Step 3: Export the key for safe keeping



Step 4: Create a partition for encryption

Physical Characteristics:	
T200	<ul style="list-style-type: none"> H: 35" W: 17.5" D: 40.5" 20U H: 889 mm W: 444.5 mm D: 1028.7 mm
T380	<ul style="list-style-type: none"> H: 49" W: 17.5" D: 40.5" 28U H: 1244.6 mm W: 444.5 mm D: 1028.7 mm
T680 ¹	<ul style="list-style-type: none"> H: 73.5" W: 17.5" D: 40.5" 42U H: 1866.9 mm W: 444.5 mm D: 1028.7 mm

Power Requirements:	
All	<ul style="list-style-type: none"> 110-240 VAC; 13.6 AMP @ 110; 6.25 AMP @ 240 Optional n+1

Weights:	
T200	• Base Frame (No Drives or Media): 185lbs / 83.9kg
T380	• Base Frame (No Drives or Media): 250lbs / 113.4kg
T680	• Base Frame (No Drives or Media): 375lbs / 170.1kg
All	<ul style="list-style-type: none"> Drive/Sled: 12lbs / 5.4kg TeraPack Case (with Media): 6lbs / 2.7kg

Interfaces for the T200, T380, T680	
Native SCSI	
Native Fibre Channel (4Gb)	
FC I/O Blade	
<ul style="list-style-type: none"> 2 Gb, dual port 4 Gb, dual port 	
iSCSI I/O Blade	
<ul style="list-style-type: none"> 1 Gb, dual port iSCSI TCP/IP Offload Engine (TOE) 	

Reliability Stats for the T200, T380, T680	
Mean Cycle Between Failures (MCBF): 1,000,000	
Mean Time Between Failures (MTBF): 250,000 power-on hrs.	
Mean Time to Repair (MTTR):	
<ul style="list-style-type: none"> 3 minutes for hot-swap components 30 minutes average for non-hotswap components 	

1. Ships with a standard 19" (483mm) rack.

About Spectra Logic Corporation

Spectra Logic is the leading innovator in data archive and backup. We help customers all over the world protect data with power-efficient products that let users reduce risk, lower cost and save time. Spectra Logic's archive and backup products are designed specifically for secondary storage needs and are compatible with every major tape and disk format. Spectra products provide integrated encryption and key management options through the intuitive BlueScale 10 interface. The company's tape, disk and encryption solutions are designed to evolve over time and are an excellent investment for IT managers who project growth and plan for years into the future.

Since Spectra Logic was founded in 1979, the company has introduced innovative, industry-leading products including: Archive and Backup Servers (nTier-2007); hardware-based, VTL encryption with compression (RXT-2006); hardware-based, library enabled encryption with compression (BlueScale Encryption-2005); and integrated tape and disk in a single library (Spectra T950 with RXT-2004). Spectra Logic is changing the world of storage.



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Model	Maximum Slots	Media	Maximum Capacity*
T200	200	LTO-4 1.6 TB Compressed	320 TB
		RXT VTL 2.0 TB Native	40 TB
T380	380	LTO-4 1.6 TB Compressed	608 TB
		RXT VTL 2.0 TB Native	76 TB
T680	680	LTO-4 1.6 TB Compressed	1.1 PB
		RXT VTL 2.0 TB Native	136 TB

Drive	Model	Maximum Drives	Maximum Throughput*
LTO-4 240 MB/sec Compressed	T200	8 Full Height	6.9 TB/Hour Compressed
		16 Half Height	13.8 TB/Hour Compressed
	T380	12 Full Height	10.4 TB/Hour Compressed
		24 Half Height	20.8 TB/Hour Compressed
	T680	12 Full Height	10.4 TB/Hour Compressed
		24 Half Height	20.8 TB/Hour Compressed

* Maximum capacity and throughput may change according to configuration.

