

STORAGETEK SL3000 MODULAR LIBRARY SYSTEM



STORAGETEK



The cost-effective, eco-efficient StorageTek SL3000 modular library system offers flexibility, scalability, and high availability in a midrange storage solution.

One thing is constant in today's business environment: change. Evolving data storage requirements can expose your business to risk and financial penalty if your solution doesn't give you the flexibility to keep up, no matter how fast data is growing. A parallel concern is the cost of people to manage the data and power to operate the storage solution. Oracle can help you stay ahead of the curve with a flexible solution that's easy to manage while it reduces environmental impact.

Designed for Unfettered Growth

Finally, a midrange library that offers uncompromising scalability, connectivity, and choice—key contributors to affordable growth. Oracle's StorageTek SL3000 modular library system offers an innovative, eco-efficient approach to midrange storage with scalability up to 50 PB uncompressed to accommodate growth.

The StorageTek SL3000 modular library system enables you to scale from 200 to just under 6,000 cartridge slots and from 1 to 56 tape drives in a footprint that grows linearly in a rack environment. The RealTime Growth capability enables you to install physical capacity in advance and tap into it incrementally, with Capacity on Demand. You can grow at your own pace and pay only for the capacity you need. This approach delivers seamless, non-disruptive scalability with no physical parts to install.

Because the StorageTek SL3000 modular library system doesn't dictate your choices, you're free to design storage the way you really want it. With Any Cartridge Any Slot technology, you can use the drive types that make sense for your access and storage needs. Choose capacity-centric Oracle's StorageTek T10000 tape drives; access-centric Oracle's StorageTek T9840 tape drives; or Linear Tape Open (LTO) tape drives from HP and IBM. The choice of Fibre Channel or FICON interfaces gives you adaptability in mainframe and open systems environments.

Dollar-Stretching Efficiency

To help your storage dollars go further, the StorageTek SL3000 modular library system simplifies consolidation to help you save space, power, and money. Unmatched support for mixed and multiple operating environments enables you to consolidate within mainframe, open systems environments, or both. Designed to cost effectively see your business through unpredictable growth and change, the StorageTek SL3000 modular library system is a smart storage investment.

You don't need to spend time on complicated, mind-boggling capacity planning. The StorageTek SL3000 modular library system offers time- and cost saving features that



KEY BUSINESS BENEFITS

BECAUSE EVERY BUSINESS GROWS DIFFERENTLY

- Gain the flexibility to scale at your own pace while paying only for the capacity you need
- Reduce costs by consolidating storage onto an eco-efficient library that can save space and power
- Simplify storage management with the industry's most flexible solution for partitioning, sharing, and managing
- Minimize risk with innovative technologies that have been proven in the most-demanding enterprise environments

RELATED PRODUCTS

The following related products support the Oracle StorageTek SL3000 modular library system:

- StorageTek T10000 tape drives
- StorageTek LTO tape drives
- StorageTek Tape Analytics

utilize your existing equipment and seamlessly integrate with newer equipment. Features such as Any Cartridge Any Slot technology, true mixed media support, no restriction sharing, flexible partitioning, capacity on demand, and Real Time Growth help you effectively operate and manage your storage environment.

Boost efficiency with the StorageTek SL3000 modular library system's unique centerline architecture, which alleviates robot contention. Robots travel one-third to one-half the distance required by competitive libraries, improving cartridge-to-drive performance by as much as 50 percent. And compared to competitive libraries, the StorageTek SL3000 modular library system can reduce your storage footprint by as much as 50 percent and consume at little as one-tenth the library power.

Easy on Your Staff

Lower your administrative burden with an intelligent approach to storage management. The StorageTek SL3000 modular library system offers the most flexible solution for partitioning, sharing, and managing. Native physical partitioning requires no extra hardware or software. You can create up to eight partitions; assign them for mainframe and/or open systems use; and address resources down to the slot in any configuration including non-contiguous resource assignments. Any Cartridge Any Slot technology further simplifies storage management by allowing any mix of supported drives and media spread throughout the library.

Oracle's StorageTek Library Console software, which comes standard with the StorageTek SL3000 modular library system, enables your staff to easily monitor and manage your library via a remote, network based operator panel or an optional local touch screen operator panel. Either way, you maintain convenient, consistent control through software that lets you manage capacity, configure library partitions, display library alerts, and run reports and diagnostics.



Oracle's StorageTek Tape Analytics software simplifies tape storage management because it takes a proactive approach to eliminate library, drive, and media errors.

For intelligent monitoring of StorageTek tape libraries, StorageTek Tape Analytics software provides tape storage customers with access to leading-edge tape monitoring software that goes far beyond exposing a red, yellow, or green indicator. Rather, StorageTek Tape Analytics software provides insights into more than 100 detailed drive,

media, and library health attributes that empower tape storage administrators to make proactive decisions about their tape environments prior to device failures. A proactive approach to managing the health of a tape environment improves the performance and reliability of existing tape investments and helps executives make informed decisions about future expenditures.

For advanced tape management capabilities, Oracle's StorageTek ACSLS Manager software (ACSLs) eases the administrative burden of managing complex tape environments by centralizing library management. With ACSLS you can consolidate your library resources, optimize library performance, and fully utilize your available storage capacity. And through dynamic configuration capabilities and the queuing of commands during short-term outages, ACSLS can reduce downtime.

Aggressively Risk-Averse

The StorageTek SL3000 modular library system keeps risk at bay, with innovative technologies that have been proven in the most-demanding enterprise environments. Non-disruptive, on-the-fly replacement of robotics, library electronics, power supplies, and drives helps sustain 24x7 operations. Dedicated TCP/IP and/or Fibre-Channel library control paths with optional dual control path technology increase overall library availability. In addition, many components of the SL3000 are the same as those of the StorageTek SL8500 modular library system, the enterprise standard for reliability, availability, and serviceability.

To reduce the financial and legal risk associated with data loss, Oracle also offers solutions to protect data onsite, offsite, and in transit. Oracle's StorageTek VolSafe secure media technology, which provides write-once, read-many (WORM) capability, is available for the StorageTek T10000 and StorageTek T9840 tape drives. VolSafe technology complies with strict electronic storage regulatory and legal requirements. WORM capable media is also available for LTO tape drives.

The StorageTek SL3000 modular library system also works with Oracle Key Manager, an appliance that provides a simple, centralized, scalable solution for managing the keys used to encrypt and decrypt data written by the tape drives. The platform independent Oracle Key Manager complies with Federal Information Processing Standards Publications (FIPS PUBS) 140-2 and runs without regard to application, operating platform, or primary storage device.

Engage the Storage Experts

Oracle offers tailored mission critical services and support for your storage environment. Oracle Advanced Customer Services helps you address storage challenges by delivering installation, configuration, optimization and on-going monitoring and tailored support. Oracle service professionals help you achieve the highest levels of system performance and availability with diagnostic and monitoring tools that help anticipate, identify and remediate any potential issues. From tape library installation services to the design and implementation of key management encryption systems, Oracle service experts help you realize more value from your storage infrastructure - with less disruption to your business. For more information contact your Oracle representative, email acsdirect_us@oracle.com or visit oracle.com/acs.

STORAGETEK SL3000 MODULAR LIBRARY SYSTEM SPECIFICATIONS

	StorageTek SL3000 Modular Library System (Base System Only)	StorageTek SL3000 Modular Library System (Large Configuration)
Performance		
Throughput per hour, native (uncompressed) ¹	StorageTek T10000D (24 drives, 252 MB/sec) – 21.8 TB/hr. StorageTek LTO7 (24 drives, 300 MB/sec) – 25.9 TB/hr. StorageTek LTO6 (24 drives, 160 MB/sec) – 13.8 TB/hr.	StorageTek T10000D (56 drives, 252 MB/sec) – 50.8 TB/hr. StorageTek LTO7 (drives, 300 MB/sec) – 60.5 TB/hr. StorageTek LTO6 (24 drives, 160 MB/sec) – 32.2 TB/hr.
Capacity		
Capacity, native (uncompressed) ²	StorageTek T10000D (320 carts, 8 TB/cart) – 2.5 PB StorageTek LTO7 (320 carts, 6 TB/cart) – 1.9 PB StorageTek LTO6 (320 carts, 2.5TB/cart) – 800 TB	StorageTek T10000D (3,000 carts, 8 TB/cart) – 24 PB StorageTek LTO7 (3,000 carts, 6 TB/cart) – 18 PB StorageTek LTO6 (3,000 carts, 2.5TB/cart) – 7.5 PB
Number of cartridge slots	200 to 5,925 customer-usable slots	
Number of tape drives / types	1 to 56 drives in any combination of supported drives, including StorageTek T10000 Fibre Channel and FICON; StorageTek T9840, Fibre Channel, and FICON; and LTO Fibre Channel	
Cartridge Access Ports (CAPs)	One standard, 26-slot CAP (with optional CAP on drive and cartridge expansion modules), 234-slot bulk-load CAP per optional Access Expansion Module (AEM)	
Availability		
Non-disruptive serviceability	PDU (optional 2N), CAP motor and control card, cooling fans, DC power supplies, tape drives, robotics (with AEM), and library electronics (optional redundant electronics)	
Mean exchanges / swaps between failures (MEBF/MSBF)	2,000,000 per robot	
Library HW availability	0.99992 (with 2N power, redundant electronics, redundant robotics, and AEM)	
Compatibility		
Supported Host Platforms	Wide variety, including Oracle Solaris, Oracle Linux, z/OS, AS/400, AIX, HP-UX, and Windows environments; please check with your Oracle account rep for your specific environment.	
Robotics Control Interface	TCP/IP (IEEE 802.3, 100BASE-T, half-duplex) with HSC or ACSLS, SMC-3 media changer command set with 8 Gb Fibre Channel.	
Any Cartridge Any Slot technology	Any supported cartridge type can be placed in any cell; no partitions or special drive or cartridge frames are required.	
Management		
StorageTek Library Console	TCP/IP remote monitoring is standard. Touch screen operator panel is optional.	
Digital Vision System	Unique digital vision camera system performs continuous calibration and reads bar codes.	
Continuous automation calibration	No periodic maintenance or alignment required.	
Automatic self-discovery	Auto-discovery and auto-configuration for all drives, media types, slots, and CAP.	
Automatic clean	Additional dedicated cleaning cartridge slots are included for tape drive cleaning for multiple drive types by library or software command.	
Mechanical		
Height	77.6 in. / 1.97 m	77.6 in. / 1.97 m
Depth	49.0 in. / 124 cm	49.0 in. / 124 cm
Width	36.0 in. / 91.5 cm	187.1 in. / 475.3 cm
Weight (library only)	790 lb. / 361 kg (Base)	2,914 lb. / 1,326 kg (Base, DEM, and 4 CEMs)

Environmental	
Temperature (operating)	+60°F to +90°F (+16°C to +32°C)
Temperature (non-operating)	+50°F to +104°F (+10°C to +40°C)
Relative humidity (operating)	20% – 80%
Relative humidity (non-operating)	20% – 80%
Power	
Voltage	Choice of 100 VAC – 127 VAC or 200 VAC – 240 VAC @ 50 Hz –60 Hz
Drive power consumption	Varies (refer to individual drive specifications)
Power consumption /dissipation	Varies by configuration
Redundancy	Standard N+1 for DC power supplies; optional 2N for AC power source; optional 2N+1 for AC and DC redundancy
Regulatory Compliance	
Safety	UL 60950-1; CAN/CSA-C22.2 No. 60950-1; EN/IEC 60950-1, -23
Emissions	FCC (47 CFR 15, Subpart B) Class A; CE (EN55022 Class A, EN61000-3-2, EN61000-3-3); VCCI V-3 Class A; ICES-003 Class A, KN22 Class A, and AS/NZS CISPR22 Class A
Immunity	EN55024, KN24, and CISPR24

¹StorageTek T10000D measured as native sustained throughput.





²Only currently sold drives are listed, however the following drives are also compatible with the StorageTek SL3000 modular library system: StorageTek T10000A/B/C, StorageTek T9840C/D, and StorageTek LTO 3/4/5.

CONTACT US

For more information about [insert product name], visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

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