



## HIGH PERFORMANCE COMES **FULL CIRCLE**

➤ **Sun disk-to-disk-to-tape (D2D2T) solutions combine the reliability and cost savings of automated tape with the added speed and performance of disk.**

With data volumes growing to unprecedented levels and new regulations requiring long-term archiving, it's imperative that your data backup, protection, and recovery be managed with optimal performance and efficiency.

### **The Speed of Disk. The Efficiency of Tape. Better Together.**

The most complete data protection strategy leverages the strengths of disk and tape. When you bring these technologies together in a D2D2T configuration, you combine the speed and performance of a disk-to-disk setup with the reliability and economical advantages of automated tape.

### **Control Costs with a Tiered Architecture**

A D2D2T strategy can be a valuable part of your overall information lifecycle management (ILM) plan. It creates a storage hierarchy that helps you better match the costs of storage with your service-level objectives and the value of the applications you're protecting.

D2D2T uses a multitiered architecture that can handle both nearline and archival data. Complementary storage technologies work together to deliver robust data protection and backup. And dual-stage disks and automated tape backup address the data protection gaps and performance limitations that result when either technology is used individually. The result? You can maximize efficiency, while still delivering your recovery point and time objectives. Simply put, adding tape backup to disk means faster restore times, shorter backup cycles, improved reliability, easier management, and better investment protection.

### **Highlights**

- **Increase ROI**— Scalable D2D2T solutions leverage the speed of disk and the economy of tape to save time and money
- **Strengthen backup**— Combining tape and disk delivers comprehensive data protection
- **Boost productivity**— Eliminate system downtime, and back up and recover mission-critical data faster and more efficiently
- **Gain more value**— Leverage industry-standard Sun products for high scalability, exceptional power, and enterprise-class performance

### **Eliminate Loopholes in Your Backup and Recovery**

Leveraging a lightning-fast Sun disk array that supports multiple software options and delivers excellent price/performance saves you countless hours in system downtime. If you're considering a new storage implementation or are ready to upgrade your technology, the cost-effective Sun Fire™ X4500 combines a data server and disk array in one appliance for the highest storage density available with simplified management. And eco-friendly Sun tape units only draw power when in use—so they don't require expensive cooling in space-constrained datacenters.

When you choose Sun for your D2D2T solution, you gain the confidence that comes with industry-standard products that store approximately 37% of the world's data. What's more, you can look to Sun for the professional services expertise you need to help you design and implement a customized, scalable system that's ready to grow with your business.

Sun D2D2T solutions close the loop on price and performance by giving you the speed you need at a price that makes sense.

### **Sun StorageTek™ 2540 FC array: simple, cost-effective storage supporting multiple configurations**

The Sun StorageTek™ 2540 array incorporates the latest 4-Gb/sec fibre channel (FC) technology necessary when deploying in new enterprise or workgroup SAN environments. By combining an FC host interface architecture with SAS drive and expansion technology, you can take advantage of improved performance and reliable data protection in an array that can be shared across an entire SAN. With up to four autonegotiating 4-Gb/sec FC host ports and 256 volumes per array, the StorageTek 2540 array supports the direct attachment of two to four servers, or support for additional servers

through SAN connectivity. The StorageTek 2540 array is an ideal choice for small storage consolidation environments, delivering reliable storage at an affordable price.

### **Sun Fire X4500 server: server and storage combined, for unprecedented data integrity**

With integrated, state-of-the-art server and storage technologies, the Sun Fire X4500 server delivers the remarkable performance of a four-way x64 server and the highest storage density available, with 24 TB in 4U of rack space. This system also delivers incredibly high data throughput for about half the cost of traditional solutions and offers dramatically simplified administration with the Solaris™ 10 OS with Solaris ZFS.

### **StorageTek Enterprise Backup Software: fast, predictable backup and recovery**

StorageTek Enterprise Backup Software (EBS) Disk Backup Option enables you to use high-capacity, high-speed disk arrays to accelerate data backup and restores and increases the performance and ROI of tape storage. Its functionality includes a backup server, client platform, NDMP support, and staging and cloning. Plus, StorageTek EBS leverages existing connectivity (SAN or LAN) and extends the life of your current tape drives.

### **Veritas NetBackup™ by Symantec: cost-effective disk-based data protection**

Veritas NetBackup software leverages the benefits of disk backup to deliver cost-effective data protection. Synthetic backup technology and automated disaster recovery enhance backup and recovery operations and help reduce costs. Combining Veritas NetBackup software with the StorageTek 2540 FC array allows instant data recovery, improved backup performance, and lower overhead. Disk staging automates backups to disk and relocation to long-term storage, resulting in a more flexible backup and recovery strategy.

**“Every company should consider their data recovery options, and disk-to-disk-to-tape.”**

**Robert E. Passmore**

Research VP, Servers and Storage, Gartner

### BakBone NetVault™ software: simple, yet sophisticated protection

With BakBone NetVault, you can significantly cut the cost and complexity of data protection. It installs in about 20 minutes from a single CD and automatically finds and configures all your backup devices. So users have enterprise-quality virtual tape library support, encryption, and policy-based management across all major applications and platforms. Easy to operate and manage, NetVault Backup is a great option if you need the power of enterprise software without the cost and complexity.

### StorageTek SL500 modular library system: flexible, scalable tape

Architected for ILM workloads, the StorageTek SL500 modular library system offers flexibility for midrange environments. Improved automation, monitoring, management, and control capabilities minimize downtime and increase your protection level. The system delivers cost-effective, modular scalability, enabling you to increase capacity and throughput as your requirements change, without reducing reliability or increasing administrative complexity. And a SAN-ready, native fibre channel interface enables cost-effective resource sharing and eliminates the need for additional router equipment.

### StorageTek SL24 tape autoloader and SL48 tape library: easy automation

The StorageTek SL24 and SL48 systems are designed to satisfy demanding data storage needs, including unattended backup, archiving, and disaster recovery, for small and medium-size businesses, workgroups, and remote offices. They're available with some of the leading tape drive technologies in a small footprint — just 2U for the StorageTek SL24 and 4U for the StorageTek SL48.

They can operate as direct-attached storage or in a SAN with the use of native fibre channel drives. Easy to install, use, manage, and upgrade, the StorageTek SL24 and SL48 systems can accelerate efficiency and cost reduction by managing information intelligently, utilizing automation, and optimizing assets.

### Engage the storage experts

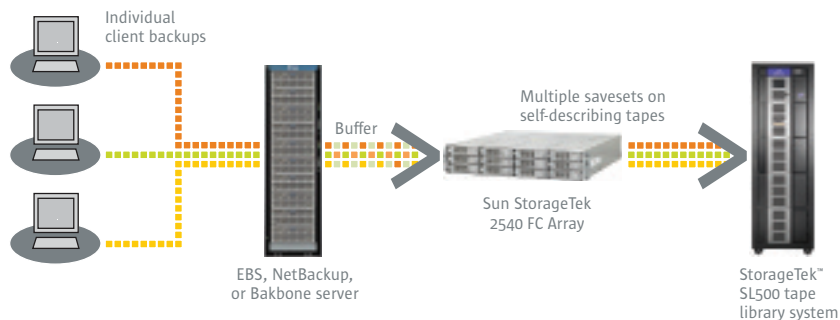
Our service professionals can help you address storage challenges by delivering integrated services and solutions that optimize and manage storage performance over the life of your data.

The insights and results we deliver through our Sun Storage Assessment services suite help drive your bottom line by tying IT and ILM strategies closer to business objectives and reducing the time between technology adoption and business results.

#### Learn More

For more information on Sun D2D2T and other storage solutions, visit [sun.com/databackup](http://sun.com/databackup).

We have both experience and a track record of proven results in applying our ILM strategies to the toughest storage challenges. And unlike other vendors, we offer independent analysis, unique analytical tools, and a range of options, including technologies, partners, and our own portfolio of solutions. Our world-class support, consulting services, and managed services mean we have the tools and individuals to help you build, deliver — and transform — your storage environment.



*A D2D2T environment based on Sun's award-winning products enables up to 10x faster backups and restores.*

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