



## STORAGE DIRECTOR®

A HIGH PERFORMANCE, SOFTWARE-DEFINED,  
CLOUD BACKUP/RESTORE/ARCHIVE SOLUTION  
FOR ENTERPRISE COMPUTING ENVIRONMENTS



Storage Director is a software-defined backup solution that can be deployed on a self-contained 3U backup storage appliance for IBM®, HP, Oracle®/Sun, VMWare and computing platforms running Windows®, Linux®, iOS (AS/400), zOS (Mainframe), HP NonStop™ and UNIX® (HP UX, AIX) operating systems. Storage Director is compatible with NetBackup, Commvault Simpana, TSM/Spectrum Protect, BRMS and other backup applications. Storage Director is architected and built on the proven Storage Director software-defined backup virtualization platform to satisfy the most demanding operational backup and archival requirements for lights-out and multi-platform enterprise computing environments.

- Provides fully automated backup, restore and DR operations
- Intelligently scales storage locally and into the cloud (Amazon S3, Glacier or any object storage cloud)
- Provides a customized high performance front-end to IBM Cloud Object Storage (Cleversafe)
- Incorporates AES 256 bit encryption and enhanced security
- Incorporates built-in data reduction, WAN optimization and latency reduction
- Meets or exceeds data backup requirements for speed, capacity, compatibility and reliability
- Scales seamlessly by adding nodes to meet performance requirements and add cache for multiple petabytes of storage
- Enables alternate site disaster recovery schemes
- User-defined policies allow flexible tape, disk, flash, cloud and data migration strategies
- Supports heterogeneous, multi-platform environments on a single Storage Director system
- Customized configurations for higher availability and specific customer needs
- Supports tape library distribution and consolidation

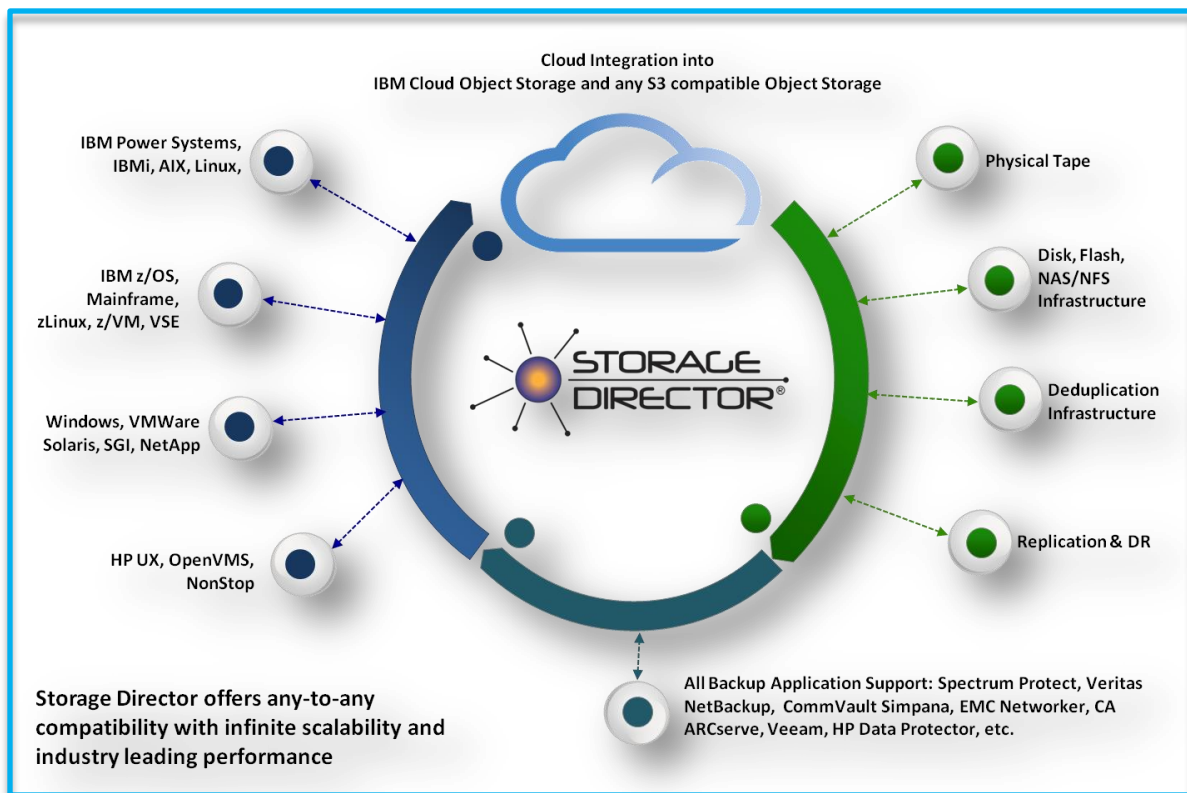
Storage Director offers a state-of-the-art backup storage consolidation appliance which can handle requirements from even the most complex environments. Storage Director provides backup storage and implements a wide variety of data protection schemes and tape library consolidation, thus eliminating the need to dedicate devices for specific backup purposes.

### FULLY AUTOMATED BACKUP AND RESTORE OPERATIONS

The technology within Storage Director brings a scalable, flexible, and high-throughput solution to backup and restore operations. Operational staff no longer need to monitor data movement. Storage Director provides dynamic drive sharing, customer defined virtual tape policies, backup to local and remote sites, and a performance improvement over current backup methods.

### MULTI-PLATFORM HETEROGENEOUS ENVIRONMENTS

Storage Director emulates several standard front-end interfaces in which existing backup servers and applications can connect and control. Because Storage Director adheres to using standard interfaces, backup servers can reside on nearly any platform and operating system in the market today. This includes all open platforms (x86 Intel® or AMD based systems) as well as IBM iSeries™ (AS/400), IBM Power Systems™ (running AIX, Linux®), HP OpenVMS, HP UX, Sun® SPARC, and open systems (running Windows, Linux, UNIX® and VMWare). Storage Director also has custom developed interfaces for proprietary computing platforms such as IBM Mainframe (running z/OS™ and zLinux) and HP NonStop (Tandem).



### REMOTE SITE BACKUP AND DISASTER RECOVERY

Offsite data storage is often a prerequisite in satisfying complete data backup and security. This can be accomplished by writing data to physical tape and then storing the tapes in an offsite vault. A better and more cost effective approach is to configure Storage Director to electronically transfer encrypted data to and from a remote site. Since the data is readily available at the remote site,

restoring using Storage Director at the remote site is an integral part in any disaster recovery plan. Storage Director incorporates enhanced tape replication features and has the option to be ordered with WAN optimization to enhance throughput.

## MULTIPLE ENDPOINT TIERING

Storage Director has multiple endpoint tiering, both on premise and in the cloud. Storage Director can securely vault data to multiple public and private cloud endpoints such as Amazon S3, Glacier, Microsoft Azure, as well as any object storage cloud architecture.

## STORAGE DIRECTOR CONFIGURATIONS

Storage Director is architected and built on the proven Storage Director backup virtualization platform and will meet the needs of large data center customers as well as small entry level customers. Storage Director is available in configurations starting at 10TB – SD1000 (10TB), 2000 (20TB), 3000 (30TB), 5400 (54TB), 7200 (72TB), 12500 (125TB), and 15000 (150TB).

For customer environments larger than 100TB raw or 500 TB compressed, infinitely scalable configurations with separate storage arrays (disk and flash) are available for Storage Director.

Backup sizes, throughput requirements, tape retention policies, availability requirements, as well as future growth rates will determine which model best fits a customer's needs.

### Storage Director at a Glance:

Virtual Slot Capacity per Library	Up to 30,000
Virtual Drive Capacity per Library	Up to 50
Virtual Libraries	Up to 100
SERVER NODE:	
Interfaces	Four 8 Gbps FC front-end ports Four 8 Gbps FC back-end ports 4 x RJ45 10GBase-T ports 2 x 10GbE SFP+ (optional) 1 x RJ45 Dedicated IPMI LAN port Hardware Encryption card
Storage Capacity (usable)	RAID 6 with hot spare
Performance	Up to 12 TB / hour per node
Emulations	IBM 3584, HP E-Series, STK L700, ACSLS, proprietary LTO-1, LTO-3, LTO-4, LTO-5, LTO-6, 3592, 9940, T10000, N1525
Physical Specs	Height: 5.2" (132mm) (rack mount 3U) Width: 17.2" (437mm) Depth: 25.5" (648mm) Weight: 72 lbs.
Operating Environment	Temperature: 10-35 C (60-95 F) Humidity: 8-90% non-condensing
Power	Redundant 1200W high-efficiency power supplies 1000W Output @ 100-140V, 11.5-8A, 50-60Hz 1200W Output @ 180-240V, 8-5.5A, 50-60Hz



**TRIBUTARY**  
S Y S T E M S

Tributary Systems, Inc. is a technology solution provider to enterprise computing customers. Tributary develops and sells software-defined data protection, cloud backup storage, archive and disaster recovery solutions. Tributary is an acknowledged global leader in providing backup storage and data protection solutions for fault-tolerant, high availability, enterprise computing environments.

Tributary was founded in 1990 and is a Texas based company with its headquarters, development, integration, and test facilities in Dallas/Fort Worth, Texas.

Through its channels and direct sales organization, Tributary has served customers worldwide, predominantly in the banking, financial services, retail, telecom and healthcare industries. Tributary is a HP business partner and OEM supplier, IBM ISV, Business Partner with an Embedded Solutions Agreement (ESA), Quantum® Reseller and Oracle® partner.



**Headquarters | 3717 Commerce Place, Suite C | Bedford, Texas 76021**  
**(817) 354-8009 | (817) 786-3090 (Fax)**  
**sales@tributary.com**  
**www.tributary.com**

Storage Director is a registered trademark of Tributary Systems, Inc. NonStop is a trademark of Hewlett-Packard Enterprise. IBM, AS/400, iSeries, System i, Power Systems and Business Partner mark are registered trademarks of International Business Machines in many jurisdictions. Linux is a registered trademark of Linus Torvalds in the U.S. and other countries. UNIX® is a registered trademark of The Open Group. Windows® is a registered trademark of Microsoft Corporation.