

STORAGE DIRECTOR® BACKUP SOLUTION



**A HIGH PERFORMANCE, SCALABLE
BACKUP SOLUTION FOR ON-PREMISE
AND HYBRID MULTI CLOUD
IMPLEMENTATION**



Storage Director® is a scalable purpose-built backup appliance for all enterprise computing platforms running Windows®, Linux®, VMware, IBM i/iSeries, HP NonStop™ and UNIX® (HP UX, AIX) operating systems. Storage Director is compatible with TSM/Spectrum Protect NetBackup, Commvault, Veeam, BRMS and all other enterprise 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, restore and archival requirements for lights-out and multi-platform enterprise computing environments.

KEY FEATURES

- Provides fully automated backup, restore and DR operations
- Replaces Dell EMC Data Domain, IBM ProtecTier and all other dedup backup appliances
- Scales storage locally and into the cloud (AWS, Google, IBM Cloud or any S3 compatible cloud)
- Provides a customized high performance front-end to IBM Cloud Object Storage (Cleversafe), Hitachi Vantara HCP object storage platform and IBM public cloud
- Incorporates hardware enabled compression and AES 256 bit encryption for enhanced security
- Incorporates built-in WAN optimization and latency reduction for high speed replication
- Meets or exceeds data backup requirements for speed, capacity, compatibility and reliability
- Scales seamlessly by adding nodes to meet performance requirements and adding cache for multiple petabytes of storage
- Enables alternate site disaster recovery schemes
- User-defined policies allow tiering data to on premise object storage, tape, NAS and any S3 compatible cloud
- Supports heterogeneous, multi-platform environments on a single Storage Director backup node
- Customized configurations for higher availability and specific customer needs
- Supports tape library consolidation, modernization and replacement
- Supports target side data deduplication on IBM Storwize and FlashSystem storage
- Natively attaches to and backs up IBM Power i/iSeries/AS400 as well as HPE NonStop/Tandem systems in addition to all open and virtual environments

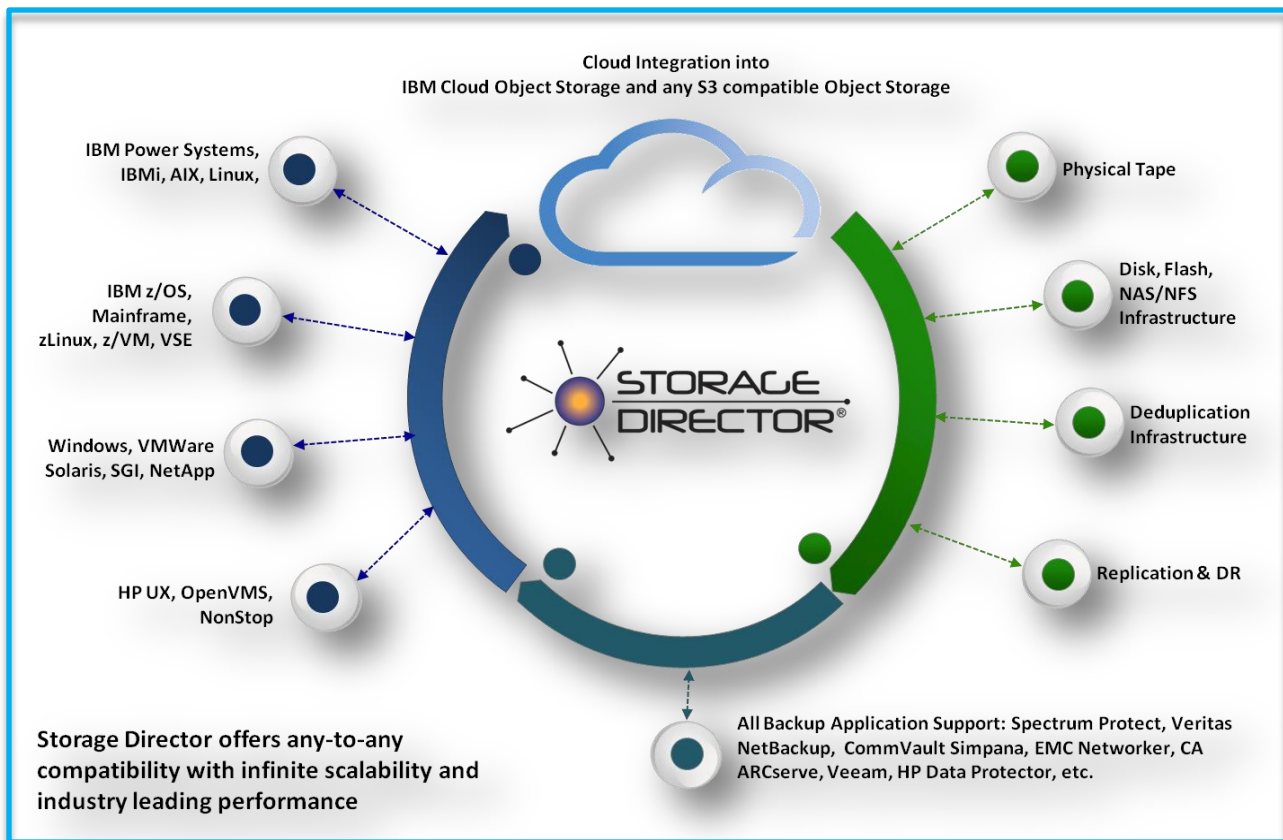
Storage Director offers a state-of-the-art backup storage consolidation solution which can handle requirements from the most complex environments. Storage Director offers high performance backup/restore/archive functions and implements a wide variety of data protection schemes with automated tiering on premise and on cloud, thus eliminating the need to dedicate devices for specific backup purposes.

FULLY AUTOMATED BACKUP AND RESTORE OPERATIONS

The technology within the solution 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 pool policies, backup to local and remote sites, and a significant performance improvement over current backup methods.

MULTI-PLATFORM HETEROGENEOUS ENVIRONMENTS

Storage Director emulates several standard front-end interfaces which existing backup servers and applications can connect and control. Due to Storage Director 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 Power Systems™ (running AIX, Linux®), HP UX, and open systems (running Windows, Linux, UNIX® and VMWare). The solution also has custom developed interfaces for proprietary computing platforms such IBM Power i/iSeries/AS400 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 the Storage Director backup appliance to replicate encrypted data to and from a remote site or public cloud. Since the data is readily available at the remote site, restoring using a Storage Director backup appliance at the remote site is an integral part in any disaster recovery plan. The solution incorporates enhanced replication features and has built-in WAN optimization and latency management to enhance throughput.

MULTIPLE ENDPOINT TIERING

Storage Director has multiple endpoint tiering, both on premise and on the cloud. It can securely vault data to multiple public and private cloud endpoints such as AWS, Google and IBM Cloud, as well as any S3 compatible cloud architecture.

STORAGE DIRECTOR CONFIGURATIONS

The solution is architected and built on the proven Storage Director software-defined platform and customer specified storage hardware and will meet the needs of large data center customers as well as small entry level customers. Storage Director appliances are available in configurations of 30, 54, 72, 96, 125 and 150 TB raw capacities. Customized configurations are available extending into multiple Petabytes.

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

Storage Director® Backup Solution at a Glance:

Virtual Slot Capacity per Library	Up to 30,000 Up to 600,000 per node
Virtual Drive Capacity per Library	Up to 20 Up to 100 virtual drives per node
Virtual Libraries	Up to 20
SERVER NODE:	
Interfaces	Front-end: Seven 8 Gbps FC ports Back-end: Eight 8 Gbps FC and two Ethernet 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: Ingestion/Backup Restore	Up to 20 TB per hour per node Up to 17 TB per 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 Systems Inc. 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.

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