



Eliminate Tapes With LightBound Backup As A Service

Executive Summary

LightBound's Backup as a Service offering is an enterprise class disk-to-disk backup solution utilizing Commvault and Scale Computing technologies. Today's IT backup needs far surpass what tape can deliver. LightBound recognizes the limitations of tape and has designed a scalable disk-to-disk backup solution that can be customized for your particular data lifecycle management needs.

State of Backups

Over the past several years there has been an influx of data growth within most companies. This data is being generated from countless systems that have specific SLA's and backup requirements. Some organizations have gone as far as implementing multiple backup solutions that address the needs of individual applications. This design, although sometimes effective, is very inefficient, complex, and costly. In fact Gartner Research, an information technology research and advisory firm, predicts "at least 30% of organizations will have changed backup vendors due to frustrations with cost, complexity, and or capability." (Dave Russell, The Future of Backup May Not Be Backup, 9/22/11)

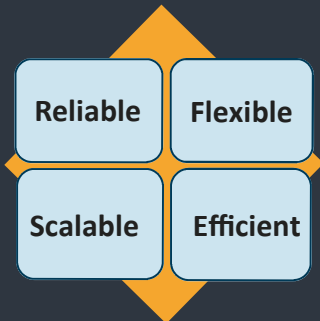
Limitations of Tape

The idea of tape backup originated in the early 1950's, with the first tape being less than 256Kb in size. Over the years there have been several iterations of formats, sizes, speed, and form factors but the inherent design of the magnetic tape is largely the same as it was in the 1950's. Tape media works most effectively when access is sequential in nature. However, today's workloads are characterized by random I/O, which can wreak havoc on tape performance if the backup software is not configured properly.

Another problem with magnetic tape technology is reliability. Tapes often succumb to failure while being stored offsite; of course this failure is not recognized until one tries to perform a restore from the tape. Industry analysts estimate anywhere between 40-70 percent of attempted tape restores fail. Even if the tape is still functional, the restore process is more time consuming than performing the same action from disk. Last but certainly not least, tape backups require expensive software to manage backup catalogs and rotation schedules.

For true business continuity tapes that contain data must be moved offsite. Offsite rotations are expensive and cumbersome to manage. Anytime a restore is needed, the offsite tape management firm must be contacted so that the offsite tape can be retrieved. This tape retrieval can take as long as 24 hours which can negatively impact your business.

LightBound Backup As A Service



Problems

Tape Reliability

Industry analysts estimate anywhere between 40-70 percent of all attempted tape restores fail.

Management

Tape backup software requires stringent management by backup administrators. Furthermore, offsite rotations are costly and inefficient.

Data Growth

Data is growing exponentially and that requires a flexible and scalable backup and restore platform. Tape is limited in both capacity and performance.



Solutions

Deduplication Technologies

Utilizing these technologies LightBound can eliminate the backup of redundant data which reduces the backup window.

Snapshot Capabilities

LightBound's Backup as a Service can provide specific point in time snapshots of virtual machines that can be used as system state backups.

Disk Clusters

Scale Computing disk clusters scale out capacity with performance with a TCC model that competes with tape.

Benefits of Disk

Comparatively speaking, a disk-based backup solution is more robust than a tape-based solution. Disks are more reliable and can be configured in a RAID protection scheme to mitigate the risk of a disk failure. While disks perform the best when access is sequential, they are exponentially faster in random workloads compared to tape. As more companies shift to virtualization technology the speed of backups become more paramount. In addition, Recovery Point Objectives (RPO's) and Recovery Time Objectives (RTO's) are becoming more stringent. This means that companies need a scalable backup solution that can grow as fast as their production data. This requirement can be addressed by implementing disk which is the fastest and most reliable backup medium on today's market.

LightBound's Backup as a Service

LightBound's Backup as a Service offering is designed with today's backup requirements in mind. Whether your company has 100's of virtual machines, TB's of SQL/Oracle data, or millions of messages in user mailboxes, LightBound can backup your data effectively, efficiently, and reliably. Using Commvault Simpana software, LightBound can adhere to you specific retention needs.

Have multiple servers or workloads that contain the same data? LightBound utilizes deduplication technology to eliminate the backup of redundant data. Deduplication saves network I/O and disk I/O while also lowering the time it takes to perform the backup. Commvault Simpana has snapshot capabilities to streamline VMware virtual machine backups. Snapshots are a point in-time copy of a virtual machine that run in parallel with the production VM. Commvault maintains a changed block tracking (CBT) database that contains specific disk sectors that have been altered since the last snapshot. Commvault can use the point in time snapshot as either a system state backup or it can be fully restored for individual file retrieval.

LightBound uses Scale Computing disk clusters, located offsite, as the target for all backups. This disk solution is a RAID 10 disk array that scales out capacity with performance; a combination truly built for today's backup requirements.

Whether your backup needs are big or small, LightBound is here to work with you on developing a backup solution that fits your business and meets your data lifecycle management requirements. LightBound understands that backup systems are becoming more complex and expensive and the time spent on managing backup infrastructure would be better spent supporting tier 1 applications and users. This is why LightBound offers one of the most comprehensive Backup as a Service solutions on the market.

