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SOLUTION
SHOWCASE



LUMINEX
DATA DOMAIN

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Mainframe Virtual Tape With Deduplication From Luminex and Data Domain

Mainframe Tape Without Tapes Is Now Practical

The Problem

Today, doing more with less and doing it faster at lower cost is a constant objective for IT managers. Any time a process is improved, costs are reduced, and business agility is increased at the same time, the solution usually garners immediate and serious consideration.

Mainframe data centers have constantly sought to reduce costs while improving their Recovery Point Objective and Recovery Time Objective for backup and disaster recovery. The primary challenge has always been the limitations of using physical tape. After all, performing backups to tape is slow, batch windows are getting smaller, and the addition of more drives doesn't speed recovery due to the wait time involved for retrieving tapes from offsite vaults. To make matters worse, companies are faced with increased security risks with tape that requires more expenditure to protect.

Some enterprises have tried to overcome the limitations of tape by using disk solutions in various ways, yet still suffer from a fairly high Total Cost of Ownership (TCO). IT managers who choose to use disk cache-physical tape combinations as a solution are usually faced with paying for ESCON and/or FICON channel extensions and the tape system upgrades that are necessary to attach the tape devices. If a mirroring solution is used to replicate data to a remote disaster recovery site, the large capital investment for disk storage, the cost of replication software, and the ongoing operational and network bandwidth expenses create a very high TCO that still does not permit a complete recovery at the disaster recovery site. If deduplication storage is not used, IP-based replication of tape volumes also is not a viable solution since the network infrastructure needed to support such large volumes of data is rarely in place.

The Solution

Luminex and Data Domain have joined forces to overcome the local and remote recovery challenges that IT managers have faced for more than a decade. By combining the use of Luminex's Channel Gateways with Data Domain's data deduplication storage systems, mainframe sites can reduce or eliminate their tape systems and replace them with

a cost-effective, reliable, and faster virtual tape backup and recovery solution. The Luminex and Data Domain backup and recovery solution allows the mainframe user to back up locally and through Data Domain's industry leading deduplication storage, to replicate data for recovery to remote disaster recovery sites.

Luminex's Channel Gateways are connected to the mainframe as a virtual tape solution emulating 3490/3590 tape drives over FICON or ESCON channels and provide connectivity to open systems Ethernet or Fibre Channel storage systems without requiring any mainframe software changes. The Data Domain systems connect directly to the Channel Gateways as an NFS file system via Gigabit Ethernet.

Data Domain's deduplication technology reduces storage and network bandwidth requirements. With Data Domain's deduplication technology, redundant data is eliminated prior to backup by an average factor of 20, dramatically reducing the amount of storage space required. By having a much smaller backup footprint, data can be replicated remotely across existing WAN infrastructures to offsite disaster recovery sites without incurring expensive channel extension and high bandwidth costs. Finally, since all backup data is on disk, data recovery is accomplished far more quickly.

The Bottom Line

The combination of Luminex Channel Gateways and Data Domain's deduplication storage systems delivers a dramatically improved, cost-effective, fast, and scalable mainframe backup and recovery solution that will certainly increase business agility in a time of need. Mainframe sites will now be able to cost-effectively retain multiple months' worth of data in near-line storage.

To learn more about Mainframe Virtual Tape with Deduplication from Luminex and Data Domain, contact:

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