## Cost-Effective Replacement for Physical Tape Vaults

Offsite copies of mainframe tape data have often been prepared using physical tapes shipped to a remote warehouse. Virtual tape improves this process with immediate, secure and monitored replication directly to a disaster recovery (DR) site. This typically requires a complete mainframe virtual tape system at DR, including FICON or ESCON connectivity, to receive the data and is intended for fast recovery time objectives.

MVT Vault is a remote replication storage target for mainframe virtual tape solutions, providing a secure, remote virtual warehouse for mainframe virtual tape data. Now, with MVT Vault, a cost-effective, compact solution for storing additional offsite copies of mainframe virtual tape data is available.
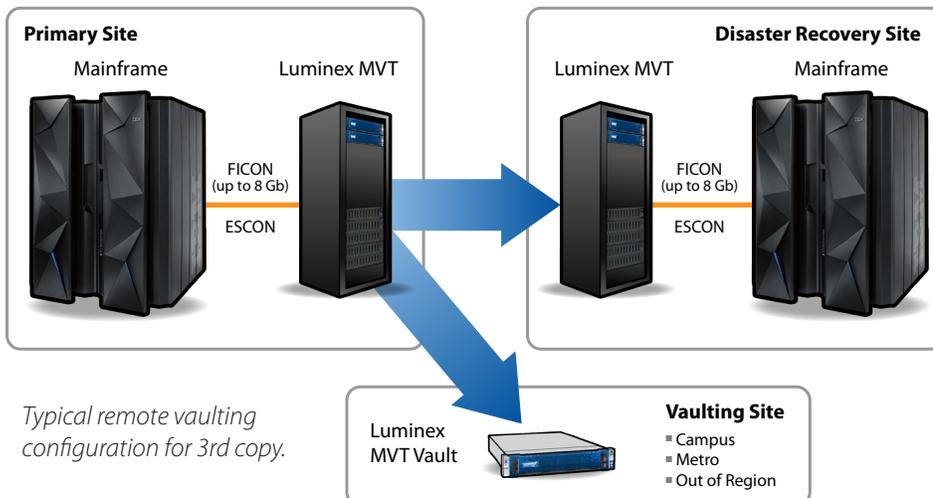
### Bolster Your Backups with an Additional Offsite Copy

- Third copy for data centers with "belt and suspenders" requirements
- Or, second copy for data centers with no DR site in place
- Ideal for customers transitioning from physical to virtual tape
- Compact 2U (3.5") form factor fits in any existing 19" standard rack and only requires two 120V power outlets
- Investment protection: upgradable to a full featured MVTi for recovery

## Use Cases

### 3rd Copy

Mainframe enterprises with an existing DR site can inexpensively store a third copy of their tape data at a vaulting site, satisfying ever-increasing SLA and other requirements. Data written to an MVTi, MVTe or CGX at the production site is replicated to a DR site, creating a second copy for recovery purposes and a third copy is simultaneously replicated to an MVT Vault from the production site.



**Primary Site**

Mainframe    Luminex MVT

FICON
(up to 8 Gb)

ESCON

**Disaster Recovery Site**

Luminex MVT    Mainframe

FICON
(up to 8 Gb)

ESCON

Luminex
MVT Vault

**Vaulting Site**
- Campus
- Metro
- Out of Region

*Typical remote vaulting configuration for 3rd copy.*

## Solution Features

- Completely automated backup of MVT virtual volumes
- Luminex Replication included
- Copies can be stored anywhere IP connectivity is available:
  - Campus
  - Metro
  - Out of region
- Replication with VOLSER-level monitoring
- Inventory Audit feature
- Compact 2U form factor installs in a standard 19" rack
- Upgradable to full featured MVTi

## Solution Benefits

- Cost-effective alternative for data centers requiring an additional copy of data that would typically be written to physical tape and warehoused offsite
- Immediately protect mainframe tape data with replication over IP
- No physical tapes to purchase, package, ship and warehouse
- Replace EOS/EOL tape drives
- On demand validation of tape data copies
- Maintain chain of custody for tape data
- Investment protection: future-proof architecture

## Requirements

- Luminex MVTi, MVTe or CGX mainframe virtual tape solutions at the production site
- IP connectivity between MVT/CGX and MVT Vault for replication, monitoring and Inventory Audit feature

## MVT Options

- **Push Button DR**
  Disaster recovery and testing with "push button" ease

- **LTMon™**
  Integrated, centralized management from the mainframe console

- **Tape Migration Software and Services**
  Seamlessly transition physical and virtual tapes with exact copies of original VOLSER numbers and labels

- **CGSafe™**
  Encryption and key management

- **CloudTAPE™**
  Replace physical tape archives and/or third copy backups with always available, geographically dispersed and secure cloud storage

- **Multi-Site Disposition Change (MDC)**
  Dynamically assign replication sources and targets among multiple sites to implement a data center "swap" from a GUI or mainframe console

- **Synchronous Tape Matrix™ (STM)**
  True continuous availability for mainframe virtual tape

## About Luminex

Luminex is a leading developer and provider of disk-based mainframe virtual tape products and technologies. Luminex solutions allow mainframe enterprise users around the world to take full advantage of the benefits of Modern Mainframe Virtual Tape to eliminate or reduce physical tape, improve RTO and RPO, lower capital and operating costs and improve data security. With Luminex solutions, enterprises can now have a single backup and recovery program for their mainframe and open systems data.
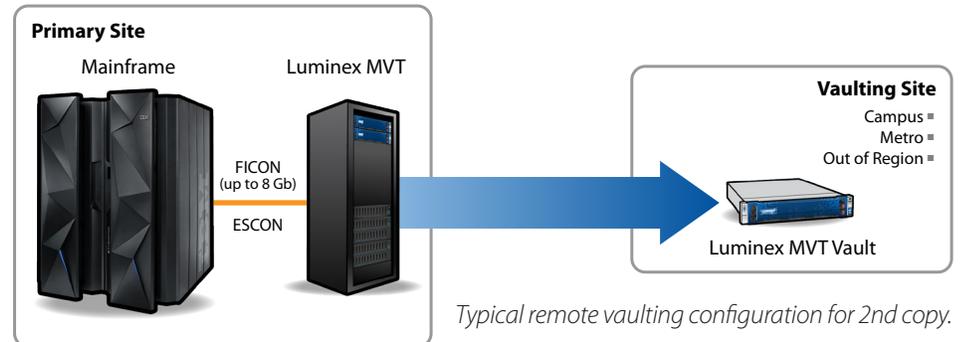
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## 2nd Copy

Mainframe enterprises that do not have a dedicated DR site can leverage MVT Vault to store second copies anywhere IP connectivity is available. At 2U, the solution fits into the empty slot of any existing 19" standard rack, allowing it to be easily stored at a customer site and minimize cost if stored at a third party recovery center.



*Typical remote vaulting configuration for 2nd copy.*

## How Does the Solution Work?

MVT Vault is a virtual tape remote replication storage target that includes Replication and Monitoring software, RAID storage and an Inventory Audit capability. It stores and secures replicated data from MVTi, MVTe or CGX virtual tape solutions at the production site.

### Recovery

In the unlikely event that MVT Vault is needed for recovery purposes, it offers numerous options to meet each customer's specific SLA requirements, budget and infrastructure capabilities.

- Authorized Disaster Recovery Center (ADRC) clients can have their hosted MVT Vault's FICON and/or ESCON capability activated on demand and used for immediate recovery

- Customer-managed MVT Vaults can be easily upgraded to an MVTi with FICON or ESCON connectivity and used initially for recovery, afterward it can be used for normal production operations

- Vault data can be copied to, or accessed by, a customer-owned MVTi, MVTe or CGX, anywhere a mainframe is available

### Auditing

MVT Vault includes two features to satisfy auditing requests and requirements. RepMon provides real-time status monitoring and logging for replication at the VOLSER level. Inventory Audit provides the ability to validate, on demand, the presence and integrity of virtual volumes at the remote site.

### Future-Proof

Since MVT Vault is built on Luminex's future-proof MVT platform, the solution ensures investment protection and maximum flexibility. As your requirements grow from offsite vaulting to offsite recovery, MVT Vault can be upgraded to a full featured MVTi with FICON or ESCON mainframe connectivity.

## Mainframe Virtual Tape (MVTi and MVTe) Solutions

MVTi and MVTe solutions include CGX virtual tape control units, which emulate 3490 or 3590 devices and are plug-compatible with IBM mainframe FICON and ESCON channels. The solutions support up to 8Gb FICON connectivity to the mainframe to achieve the industry's best FICON performance and throughput. The solutions are mainframe application transparent, so customers can continue to use existing applications without modification.