

Optica's zVT with NEC HYDRAsstor for IBM z Systems Customers

# Mainframe Virtual Tape with Optimized Disk Backup

## At a Glance

- Improves performance for backup and recovery
- Easy to install, implement and manage
- Transparent to the backup application and the host
- Reduces operational expenses associated with physical tape
- Minimizes errors inherent with physical tape

## Overview

Optica Technologies and NEC have partnered to offer a high performance mainframe virtual tape solution combining zVT, Optica's mainframe virtual tape appliance, with HYDRAsstor, NEC's scalable deduplication storage technology. zVT with HYDRAsstor is perfect for customers looking to replace 3490/3590 physical tape or older virtual tape products. zVT with HYDRAsstor is available with high-availability and high data resiliency features like multi-node support that mainframe users require along with WAN-optimized replication that reduces network bandwidth requirements and operational costs for disaster recovery.

## Solution

### Improves performance for backup and recovery

zVT with HYDRAsstor is built on a scalable architecture that eliminates storage side bottlenecks for backup and restore by parallelizing I/O for multiple streams. In addition, zVT with HYDRAsstor eliminates the need to rewind or unload physical tape cartridges after completing read/write operations, thereby saving time and resources.

### Easy to install, implement and manage

zVT with HYDRAsstor is easy to install, implement and manage. Use the zVT graphical user interface (GUI) to define each virtual tape device and establish a mount point for HYDRAsstor. Then begin applying policies. Policies can be managed flexibly from the zVT GUI or the

mainframe itself. zVT with HYDRAsstor is compatible with all major backup applications and supports z/OS, z/VM and z/VSE operating systems.

zVT's policy manager makes it easy to assign virtual tape characteristics once they are assigned to a mount point on HYDRAsstor. The policy manager allows the user to set VOLSER ranges, segment tapes by group and define label and media types for the tapes being emulated. zVT can also be managed directly from the mainframe via a command line interface.

## Transparent to the backup application and the host

zVT with HYDRAsstor customers can use the same backup applications and processes that are currently utilized, so there is no operational impact. This makes the transition from physical tape to a capacity-optimized disk based solution easy. In addition, customers gain the benefits of high-speed disk for improved performance, efficiency and flexibility to adapt to a changing business environment.

## Reduces operational expenses associated with physical tape

Traditional tape systems consume large amounts of floor space and power. They utilize thousands of physical tape cartridges that require manual operations that are expensive and error-prone. zVT with HYDRAsstor virtualizes your physical tape environment while reducing the footprint, power consumption and operational costs.

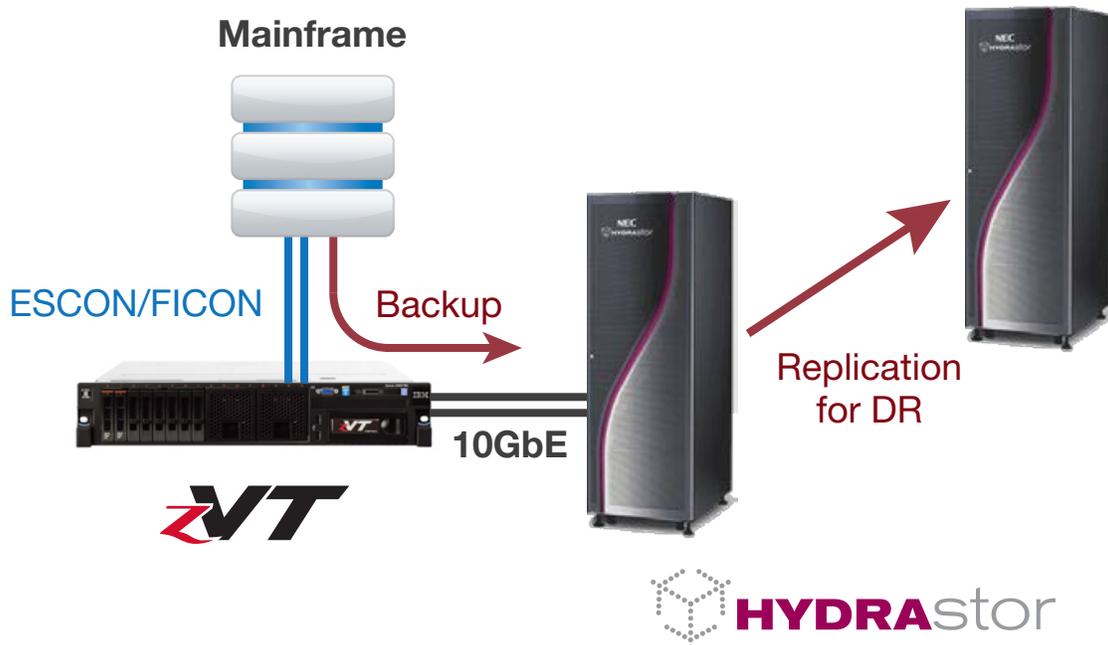
zVT can scale from 16 to 256 virtual tape drives per appliance with support for an unlimited number of virtual tape volumes and backend storage for maximum flexibility. zVT can also be deployed with multi-node support (active/active failover) for additional resiliency and scalability.

HYDRAsstor can be deployed in a single node configuration and expand modularly up to 165 nodes, while offering inline global deduplication and compression across the entire system, regardless of size. In addition, HYDRAsstor offers WAN-optimized replication support to reduce network cost while eliminating the physical security risk of manual packaging and shipping of physical tape media with automated offsite data backup for DR.

## Minimizes Errors Inherent with Physical Tape

Physical tape operations generate more backup/restore failures than disk based storage due to mechanical errors and lack of data redundancy. zVT with HYDRAsstor protects user data across the entire system with block level CRC checking and Distributed Resilient Data™ (DRD) erasure-coded data protection. DRD can tolerate up to 6 concurrent disk or node failures, while maintaining normal I/O and minimizing operational impact. HYDRAsstor's grid architecture delivers high availability with no single point of failure, including front-end failover, back-end node level resiliency, and dual-switch interconnect.

# HYDRAsstor / zVT Backup & DR Solution



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HW15010 | v.08.28.15