OCZ STORAGE SOLUTIONS | A Toshiba Group Company

OCZ VXL 1.3 for VMware® Environments

Optimize your virtualized business applications

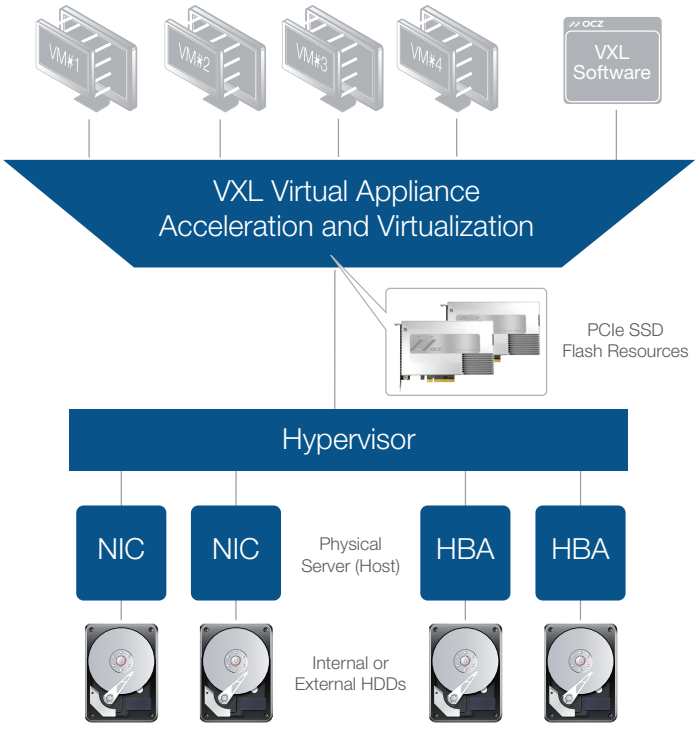
The OCZ VXL Software Solution maximizes performance of virtualized server environments by combining advanced application-optimized caching with dynamic allocation of on-host flash. In conjunction with an OCZ Z-Drive R4 and Z-Drive 4500 PCIe SSD, VXL enables intelligent and efficient on-demand distribution of flash between Virtual Machines (VMs) based on need regardless of how many VMs are running concurrently.

VXL virtualizes Z-Drive Series flash and presents it as network-available storage volumes and caching resources. With essential features such as High Availability (HA) and end-to-end Fault Tolerance (FT), VXL provides superior application performance and access, with or without a back-end SAN or storage appliance.

VXL Delivers

- Application optimized caching
- Highly available flash volumes
- Dynamic flash resource sharing
- 'SAN-less' data center enablement
- Flash performance without compromising VM functionality
- vMotion™ support without loss of cache
- Automated cache warm-up scheduler
- Simple non-intrusive installation

The VXL Solution



VXL treats flash memory as a virtual resource working as a central virtual appliance that manages on-host flash

Caching and storage virtualization is handled in the self-contained central VXL virtual appliance and designed to work with any OS supported by a hypervisor

Working with the hypervisor directly, VXL dynamicallydistributes flash resources on demand, based on need, across application VMs to maximize performance

The caching algorithm includes application-optimized caching strategies that decide what data it will cache

Flash volumes are automatically provisioned from host flash with unallocated flash transparently distributed as a dynamic cache resource (ensuring its optimal utilization)

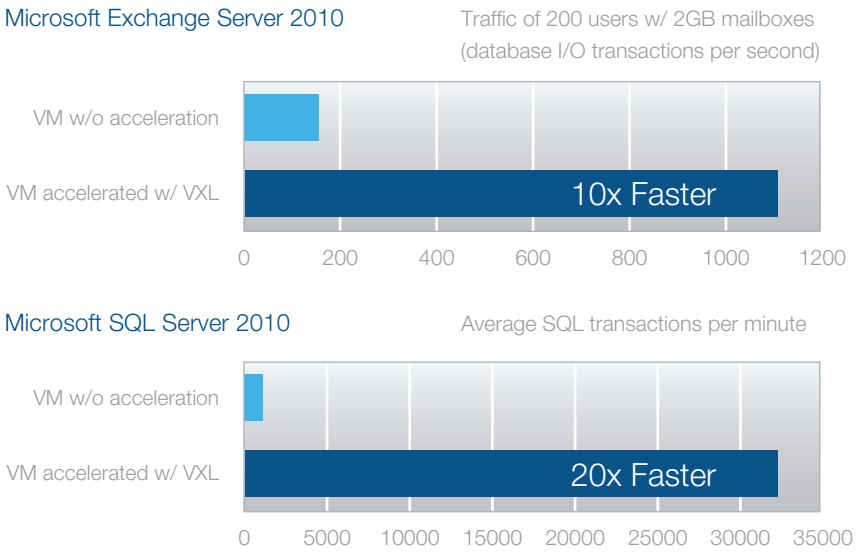
Flash volumes and cache accelerated volumes are presented as distributed network resources accessible by any VM on the local server or virtualized cluster

No guest agents (or drivers) within the application VM are required to facilitate easier deployment, maintenance, and management of the storage infrastructure

Dual tier memory and flash caching policies can use any VXL-assigned host memory resource as a central network-accessible memory tier.

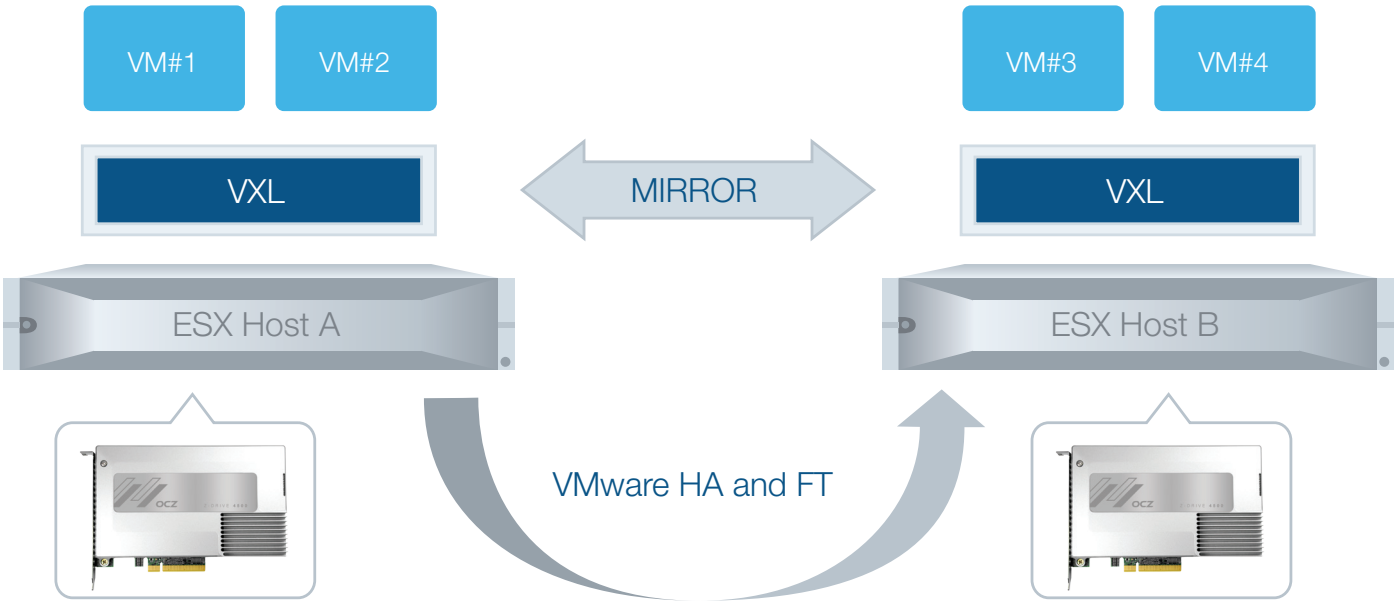
Application Optimized Caching

VXL is uniquely designed to monitor all data requests to and from the SAN using application-specific caching policies and storing critical data locally in Z-Drive R4 and Z-Drive 4500 PCIe SSDs. This can reduce external traffic by up to 90%.



Highly Available Flash Volumes

VXL enables single step provisioning of mirrored highly available flash volumes, virtualized from on-host flash, to provide immediate, uninterrupted flash acceleration even during complete server failures and VM migration (vMotion).



Dynamic Flash Resource Sharing

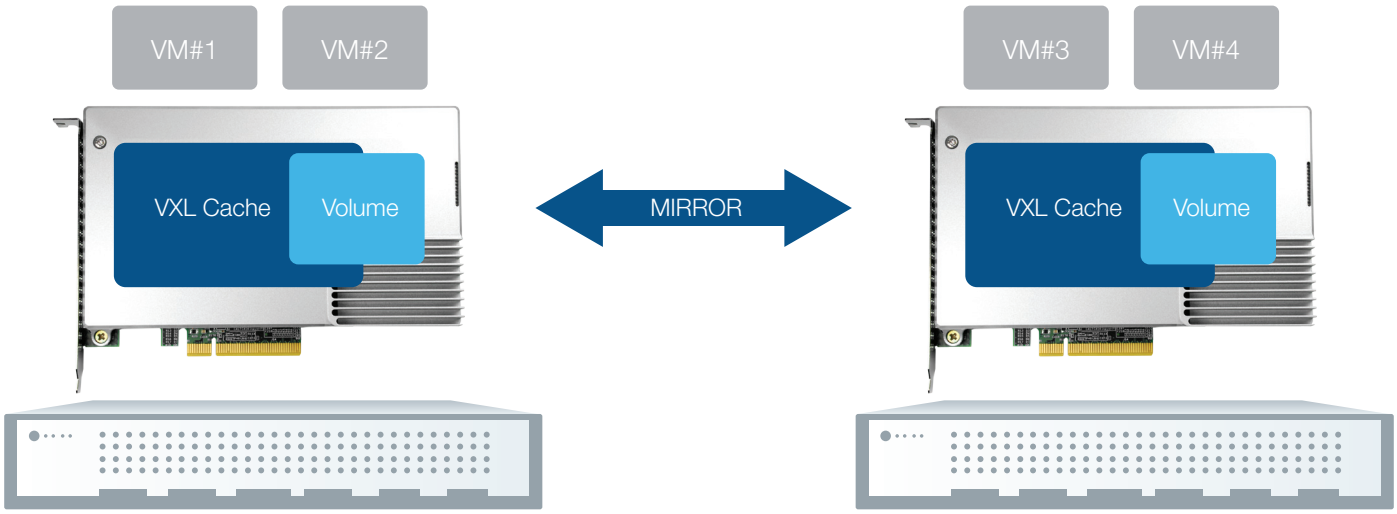
VXL virtualizes Z-Drive R4 and Z-Drive 4500 flash resources across the network to be shared by VMware cluster hosts. Its network-distributed architecture maximizes your flash investment to the fullest.

Cache Warm-up Scheduler

Allows IT to identify repeated data access patterns, such as a morning VDI boot storm, and preload critical data onto the cache at a precise time, assuring it is available the moment it is needed.

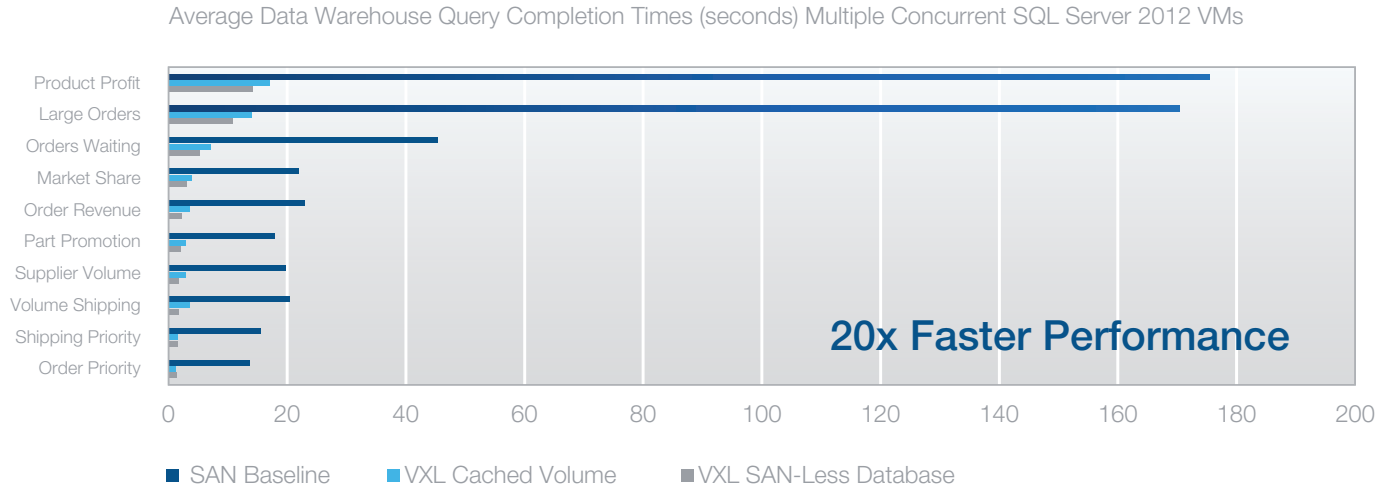
‘SAN-less’ Data Center Enablement

VXL supports a green, energy-efficient, all-silicon SAN-less data center, and through synchronous mirroring and automatic server failover, enables fault tolerant environments based entirely on virtualized host flash.



Flash Performance without Compromising VM Functionality

VXL delivers superior flash-level performance to VMs without negating any of the advanced capabilities of virtualized environments and provides full support for vMotion without loss of cache.



Simple Non-intrusive Installation

VXL does not require guest agents or special drivers within the application VM and works with any OS supported by a virtualization hypervisor

SSD Requirements

OCZ Z-Drive R4:

- RM88
- RM84
- CM88
- CM84

Z-Drive 4500 Series

Supported Guest Operating Systems

- All hypervisor supported Windows variants
- All hypervisor supported Linux variants
- All other Operating Systems supported by the hypervisor