Enable business-critical systems to run efficiently with elastic, scalable storage at a fraction of the cost of competing solutions

High-Performance, Fault-Tolerant, Low-Cost Storage Recaptured from Unused Storage Capacity

With Virtuozzo Storage, unused space on server nodes can be turned into low cost cloud storage. Its highly available, distributed storage system has built-in replication and disaster recovery. And most importantly, you can build fault-tolerant, multi-machine storage clusters using nothing more than your servers' pre-existing, locally attached hard drives, with no additional hardware costs.

Virtuozzo Storage delivers:

- **Fault tolerance:** no single point of failure
- **High performance:** multi-machine storage clusters that meet or exceed the performance of locally attached disks
- **Low cost:** unused disk space turns into a resilient cloud storage pool
- **Scalable:** capacity up to multiple petabytes

Optimized for the Cloud

Virtuozzo Storage was designed from scratch to work with virtualized environments. We decouple computation from storage, enabling VMs and containers to instantly migrate to another physical server whenever the original server becomes unavailable. Storage for VMs and containers is no longer limited to locally attached disks as the server can access the entire cluster distributed across multiple physical machines.

Use Virtuozzo Storage to:

- Store and run Virtuozzo VMs and containers optimized for the cloud
- Accelerate performance to speeds 160-640% faster than leading hypervisors on traditional LAMP stacks
- Create block, iSCSI, NFS, and S3/Object storage all in one solution
- Eliminate server downtime due to hardware failures
- Deliver highly available cloud servers
- Enable zero downtime, live server migration, and non-disruptive replication

Unbeatable Cost Savings Without Sacrificing Performance

By leveraging your existing disk space instead of purchasing expensive, new hardware, we deliver the lowest cost cloud storage solution available. With Virtuozzo Storage, you can reduce or eliminate the need for special purpose storage devices and the capital expenditures and operating expenses that come with them.

Virtuozzo Storage boosts capacity even while lowering costs by:

- Spreading storage across all nodes in the cluster to uniformly use available disk bandwidth
- Supporting SSD caching to burst existing I/O performance by an order of magnitude and increase hardware use and density

Key Features

- **Scalable**
  High performance that's scalable to petabytes.
- **High Availability**
  End users won't experience service loss if the server suffers a hardware failure. The system automatically switches to redundant data copies and quickly restarts the service on another physical machine.
- **Hot-Pluggable**
  Expands easily when adding nodes and devices.
- **Data Protection**
  Provides user data check-summing and verification. Performs background data verification scrubbing to ensure readable, correct data.
- **SSD Caching**
  Bursts I/O performance, increasing hardware utilization and density.
- **Rebalance**
  Rebalances new storage servers across the total cluster.
- **Failure Tolerant**
  Set the level of redundancy required, and Virtuozzo automatically detects failures and performs auto-recovery. During recovery, the storage cluster adjusts to provide continuous data access for clients.
- **Auto Recovery**
  Automatically recovers damaged, lost, or inaccessible data replicas below the configured replication level.
Behind the Technology

Highly Available, Highly Resilient Storage Clusters

Virtuozzo Storage leverages untapped space on existing server nodes and transforms them into a shared, highly available storage cluster. All stored files, including VM and container images, are broken into fixed-sized data chunks. The chunks are replicated and stored across disk arrays in the cluster, so when a disk drive fails or a server becomes unavailable, data copies are available on the remaining active drives. When a hardware failure occurs, Virtuozzo automatically regenerates the lost data to ensure that the storage cluster stays healthy, resilient, and reliable.

Flexibility to Deploy Containers and VMs

Virtuozzo Storage is the only solution that allows coexistence and migration between servers running container or hypervisor technology. Take advantage of the streamlined operations of containers, as well as high performance VMs for isolated applications or simultaneous heterogeneous environments.

Fast Performance

Compare Virtuozzo Storage to SATA direct-attached storage performance. We're 50 times faster than SATA direct-attached storage with SSD caching.

On a 14-machine cluster with four rotational HDDs, each delivers 13K IOPS on random 4K reads and up to 600K IOPS with SSD caching. On a 14-machine cluster, a 1 TB drive failure recovery takes only 10 minutes.

Requirements

Software

Virtuozzo 6.0

Infrastructure

- Separate, dedicated 1 or 10 GigE storage network recommended
- SATA / SAS / SSD drives on storage nodes
- 1 GB RAM per each 100 TB in cluster for metadata servers

For More Information

www.virtuozzo.com
sales@virtuozzo.com
+1 206 539 0730

© 2016 Virtuozzo. All rights reserved. Virtuozzo and the Virtuozzo logo are trademarks of Virtuozzo. June 2016