

### Hypervisor-Based, Enterprise-Class Replication and Continuous Data Protection

#### The Challenge – Mission-Critical Disaster Recovery in a Virtual World

Disaster Recovery (DR) and Data Protection have become the most critical challenges in deploying tier-one applications on a virtual infrastructure. Applications are managed and provisioned as virtual machines (VMs) and virtual disks (VMDKs) – but current storage-based replication and disaster recovery technologies are still LUN and volume oriented. This approach doesn't take full advantage of the flexibility and mobility offered by the virtual infrastructure and results in complex, labor-intensive setup and management. Without replication and DR being fully in line with the virtual paradigm, many of the benefits achieved through virtualization are lost.

#### Zerto – Changing the Disaster Recovery Paradigm

Zerto's hypervisor-based remote replication technology is different from any other DR technology – providing the granularity needed in today's complex enterprise infrastructures, without compromising on performance, simplicity of operation, scalability, reporting, mobility or flexibility. Purpose-built for tier-one applications deployed on a virtual infrastructure, Zerto's virtual replication is the only technology that combines near-continuous replication with block-level, application-consistent data protection across hosts and storage.

Zerto replication separates the application from its physical constructs at the data-protection level. It is fully storage vendor and protocol agnostic, protecting data from any source to any target. Simple to install and intuitive to use, Zerto is ideally suited for both data centers and cloud infrastructure.



#### Tier-One Disaster Recovery – Now for Virtual Environments

Tier-one applications need tier-one performance and availability, and Zerto Virtual Replication delivers just that – managed from within the virtual infrastructure:

##### Tier-One Replication

- Near-synchronous replication
- Scalable management and deployment
- Zero application performance impact
- Recovery Point Objective (RPO) of seconds
- Application recovery enabling a Recovery Time Objective (RTO) of a minute
- WAN degradation and outage resiliency
- Compression and WAN optimization

##### Virtual Protection

- VM and VMDK consistency grouping
- Replication from anything to anything
- Full support for VMotion, storage VMotion, Cluster and HA
- Consistency across hosts and storage

#### About Zerto

Founded by a team of storage industry veterans, Zerto provides enterprise-class business continuity and disaster recovery solutions for virtualized infrastructure and the cloud. Zerto Virtual Replication is the industry's first hypervisor-based replication solution for tier-one applications, replacing traditional array-based BC/DR solutions that were not built to deal with the virtual paradigm. Ziv Kedem, Zerto's founder and CEO, previously co-founded Kashya, acquired by EMC. Backed by Battery Ventures and Greylock Partners, Zerto is dual-headquartered in Israel and the United States. For more information, please visit: [www.zerto.com](http://www.zerto.com).

#### Hypervisor-Based Replication

At the heart of Zerto's patent-pending replication technology is the Zerto Virtual Replication Appliance (VRA). A single, software-based VRA is quickly installed on each host, capable of protecting all the VMs on that host. The VRA continuously replicates data from VMs and VMDKs selected by the user, compressing it and sending it to the remote site over WAN. Replication is performed in a near-synchronous manner without a snapshot or CBT mechanism, avoiding any negative impact on application performance. VRAs on different hosts communicate between themselves, synchronizing replication to ensure block-level consistency between different VMs located on different hosts and storage arrays. Hypervisor-based replication is fully agnostic to storage source and destination, natively supporting all virtualization platform features including VMotion, storage VMotion, high availability, clustering and more.

## Protect and Recover Multi-Tier Applications

Protecting multi-tier, mission-critical applications means ensuring quick and safe recovery of the entire application, including all components running on different servers and storage. For example, a given CRM application may span across eight VMs deployed on four physical servers using five different data stores located on three different LUNs. To successfully recover such an application, full consistency between all application components is critical.

Zerto's Virtual Protection Groups (VPGs) are a collection of VMs and their related VMDKs, which have dependencies and must be recovered with write-order fidelity. Zerto VPGs ensure applications are replicated and recovered with consistency, regardless of the underlying infrastructure. This enables deployment of the application across different physical devices to maximize performance and capacity, while reducing complexity.

- Group VMs and VMDKs into VPGs
- Maintain all properties of a VPG's VMs
- Test recovery, failover and failback of the entire VPG
- Seamless support for vMotion, DRS and HA while replicating
- Application protection policy and QoS
- Leverage built-in support for VSS and VMware vApp objects

## Click-to-Protect – Simplifying Disaster Recovery

Select any VM in vSphere vCenter, click the Zerto tab and it's protected. It's that simple – no storage configuration necessary, no agent installation required. Zerto protects at the VM and VMDK level, which means that protection decisions can be made without any storage constraints.

- Replicate single or multiple VMs
- Protect multiple VMDKs connected to the same VM
- Support replication of RDM devices to a remote VMDK or RDM
- Use an intuitive GUI embedded in vSphere vCenter
- View and manage local and remote sites from the same vCenter

## Do It All – Replication, Testing, Recovery, CDP, Migration, Reporting

Zerto eliminates the need to use different solutions for your DR needs. All required workflows are built-in with easy-to-follow and scalable wizards:

- Failover one or more VPGs, including automatic reverse replication
- Recover to a historic point-in-time with journal-based CDP
- Recover volumes instantly, in read-write format
- Test failover, including full remote recovery in a sandboxed zone
- Migrate workloads to a remote data center
- Get comprehensive reporting on all system-wide activities

## Cloud-Ready Disaster Recovery

Disaster recovery to the cloud is considered by many enterprises as a natural first step in the journey to the cloud, being an effective alternative to in-house DR sites.

Zerto's technology fits perfectly with the specific needs of both enterprises and cloud providers.

- Replication from any storage to any storage
- Management API
- Built-in WAN optimization
- Native multi-tenancy support
- Software only, highly scalable
- Tier-one protection level

## Supported Environments

- ESX/ESXi 4 and up
- Storage: SAN, NAS, FC, iSCSI, DAS, and all external and internal storage supported by VMware, including replication between different storage types
- Volumes: VMFS, Virtual RDM, Physical RDM, including replication between volume types
- Guest OS: all OS supported by VMware
- Virtualization Features: vAPP, HA, DRS, vMotion, Storage vMotion.



Contact us today to learn more or request a free trial at [www.zerto.com](http://www.zerto.com) or [info@zerto.com](mailto:info@zerto.com).

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