













Hypervisor-based Replication Technology Comparison

A Comparison of Zerto 5.0 vs. Current & Legacy BC/DR Technologies

Zerto's innovative, hypervisor-based replication technology for VMware vSphere and Microsoft Hyper-V environments delivers a true enterprise-class, yet fully virtual-aware, complete BC/DR solution for all virtualized applications that require protection.

Zerto Virtual Replication (ZVR) 5.0 is the only future-proof all in one replication and recovery solution that makes disaster recovery simple and scalable from private, hybrid and to public clouds. Maintain IT Resilience as your infrastructure evolves with hypervisor-based replication of VM block-level changes, from any storage to any storage, between VMware vSphere versions and cross-hypervisor for on premise datacenters or the utilize the cloud for Disaster Recovery as a Service.

Feature	Description
 IT Resilience	Remove lock-in & evolve IT with storage & hypervisor-agnostic replication
 Simplicity	Single disaster recovery solution for VMware vSphere & Microsoft Hyper-V
 Hypervisor-based	Scale-out enterprise-class architecture, protect, recover & migrate thousands of VMs
 Always-on	Data loss in seconds & continuous replication of VM block-level changes with no snapshots
 Zerto Mobile	Securely monitor protection across multiple sites from anywhere anytime
 One-To-Many	Simultaneously replicate VMs both locally and to multiple remote sites
 Automation	Recover individual applications or entire sites in minutes with 1-click failback
 Granularity	Re-wind and recover VMs & applications from any point in time from in up to 4 weeks
 File-level	Restore files & folders from seconds before corruption, ransomware infection or deletion
 Prove Compliance	No-impact failover testing and reporting to prove recovery in working hours in minutes
 REST API	Fully automate deployment & VM protection with easy to use ready-made examples
 Future Proof	Utilize ZVR on premise or for DRaaS to Azure, AWS or 1 of over 200 Zerto Cloud Providers

COMPARED TECHNOLOGIES

The current and legacy solutions compared in this document include:

Zerto Virtual Replication 5.0

Enterprise-class replication, recovery orchestration and automation BC/DR technology

RecoverPoint for VMs 4.3 (RP4VM)

Hypervisor based replication, CDP and recovery solution for VMware BC/DR

Array Based Replication (ABR)

LUN replication between storage arrays with manual recovery and testing operations

Site Recovery Manager v6 (SRM)+ ABR

SRM v6 utilizing ABR configured between matching storage arrays for VMware BC/DR

SRM + vSphere Replication (VR)

SRM utilizing the vSphere replication v6 engine for VM-level protection for VMware BC/DR

Veeam Replication v9

Replication using Veeam Backup & Replication v9 utilizing snapshots for VMware & Hyper-V

Double-Take Availability for vSphere

Hypervisor based replication and recovery solution for VMware BC/DR

COMPARISON METHODOLOGY

To provide a meaningful comparison, the features required as part of a complete BC/DR solution have been separated into the following categories:

- ✓ Architecture
- ✓ Replication
- ✓ Recovery & Automation
- ✓ Cloud Readiness

COMPARISON MATRIX

Architecture	Zerto 5.0	RP4VM 4.3	ABR	SRM v6 & ABR	SRM v6 & VR	Veeam v9	Double-Take
BC/DR for vSphere & Hyper-V	●		●			●	
Hypervisor-based replication	●	●			●		●
Installable in minutes at any scale	●						
Scalable to 5000 VMs	●		●	●			
Software-only	●	●			●	●	●
Upgrade in-place in minutes	●						
No hypervisor version lock-in	●		●			●	●
Management redundancy	●	●	●	●	●		

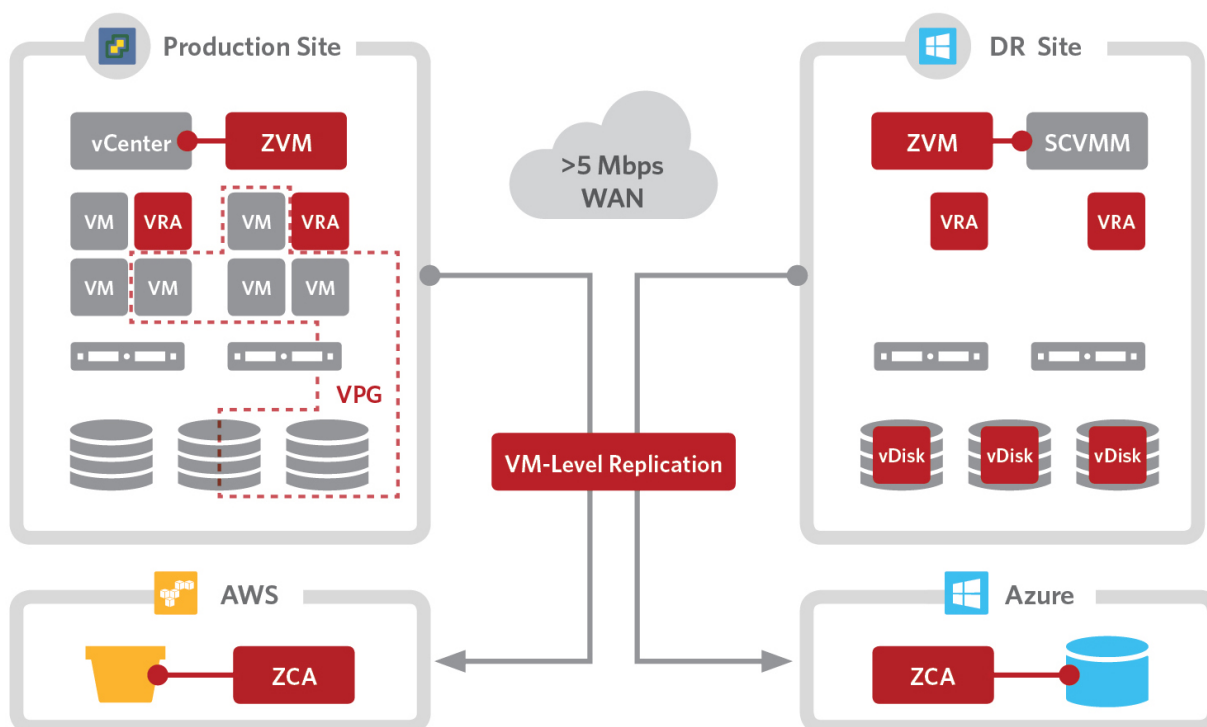
Replication	Zerto 5.0	RP4VM 4.3	ABR	SRM v6 & ABR	SRM v6 & VR	Veeam v9	Double-Take
Always-on, block-level with no scheduling	●	●			Complex		●
Storage agnostic VM-level replication	●	●			●	●	●
RPO = seconds with no snapshots	●	●					
No protected VM performance impact	●						
Re-wind to increments in seconds	●	●					
Multi-VM consistency groupings	●	●	●	●			
One-To-Many simultaneous replication	●	●					
Cross-hypervisor replication	●						
vMotion & svMotion support	●	●			●	●	
Built-in WAN compression	●	●			●	●	●
Bandwidth throttling and QOS	●						
Dynamic & compressed journaling	●						
SQL & Oracle Temp DB optimization	●						
Automatically protect new VMs	●			●	●		

Recovery & Automation	Zerto 5.0	RP4VM 4.3	ABR	SRM v6 & ABR	SRM v6 & VR	Veeam v9	Double-Take
Recover sites, apps, VMs & files	●						
Recover to thousands of points in time	●	●					
RTO = minutes with boot ordering	●	●		●	●	●	
Cross-hypervisor VM conversion	●						
Orchestrated & automated failover	●	●		●	●	●	●
No snapshots on recovery VM	●	●	●	●			
Failback with reverse protection	●	●	Complex	●	●	●	●
Non-disruptive failover testing	●	●		●	●		
Automatic re-IP, re-MAC of VMs	●	●		●	●	●	●
Recovery reports for compliance	●			●	●	●	
REST API with automation examples	●						
Cloud Readiness	Zerto 5.0	RP4VM 4.3	ABR	SRM v6 & ABR	SRM v6 & VR	Veeam v9	Double-Take
DRaaS to over 200 Zerto Cloud Providers	●						
DRaaS to Azure with RPOs in seconds	●						
DRaaS to AWS with RPOs in seconds	●						
Multi-tenancy & traffic isolation	●						
vCloud Director integration	●					●	
Self-service portals & role based access	●						
Mobile App SaaS Monitoring	●						
Multi-site management interface	●					●	

Only Zerto Virtual Replication provides enterprise-class replication features that easily align with flexible virtual environments and provides the added advantages of being storage agnostic, hypervisor agnostic with fully integrated orchestration and automation that is cloud ready and provides a complete BC/DR solution for your virtualized applications.



ARCHITECTURE OVERVIEW



Zerto Component	Description
Zerto Virtual Manager (ZVM)	Central management interface for replication & recovery orchestration, deployed in a Windows VM, 1 per vCenter or SCVMM management server for redundancy
Virtual Replication Appliance (VRA)	Scale-out architecture of 1 VRA per hypervisor host utilizing 1 vCPU, 4GB RAM, 12GB disk & 1 IP for continuous VM block-level replication with no snapshots & no impact
Virtual Protection Group (VPG)	Multi-VM consistency grouping mechanism for consistent recovery of applications, supports VMs across hosts, clusters, storage, HA, vMotion & Storage vMotion
vDisk & Journal vDisk	Replica data stored as vDisks in target vSphere or Hyper-V environment with compressed journal vDisk for point in time recovery, average 7-10% additional space
VM-level Replication	Replicate over shared or dedicated port groups, VPNs & IP link, multi-site support, Direct Connect, VPN to VPC for AWS, VPN to Virtual Network or Express Route for Azure
Azure Zerto Cloud Appliance (ZCA)	Combination of a ZVM & VRA running in a Windows Azure D3 v2 VM, storing replica data in a storage account, with preconfigured recovery VMs only created when needed
AWS Zerto Cloud Appliance (ZCA)	Combination of a ZVM & VRA running in a Windows AWS m4.xlarge instance, storing replica data in a S3, with preconfigured recovery instances only created when needed

WANT TO TRY IT OUT?

Zerto Virtual Replication can be installed, configured and protecting VMs in under 1 hour with no downtime or major production changes. Download your free trial today at www.zerto.com to discover the future of IT resilience with simple and scalable VM-based replication with RPOs in seconds and no snapshots.