



With over 1 million active users, Amazon Web Services (AWS) is fast becoming the new norm for many IT services. To capitalize on the benefits of running workloads in AWS many organizations have, or are considering migration projects for their workloads that would most benefit from running in the public cloud.













The size of the data set and number of the workloads being migrated to AWS varies, but the same key challenges remain when performing migrations to AWS from on premise virtualization platforms like VMware vSphere and Microsoft Hyper-V. These challenges often include:

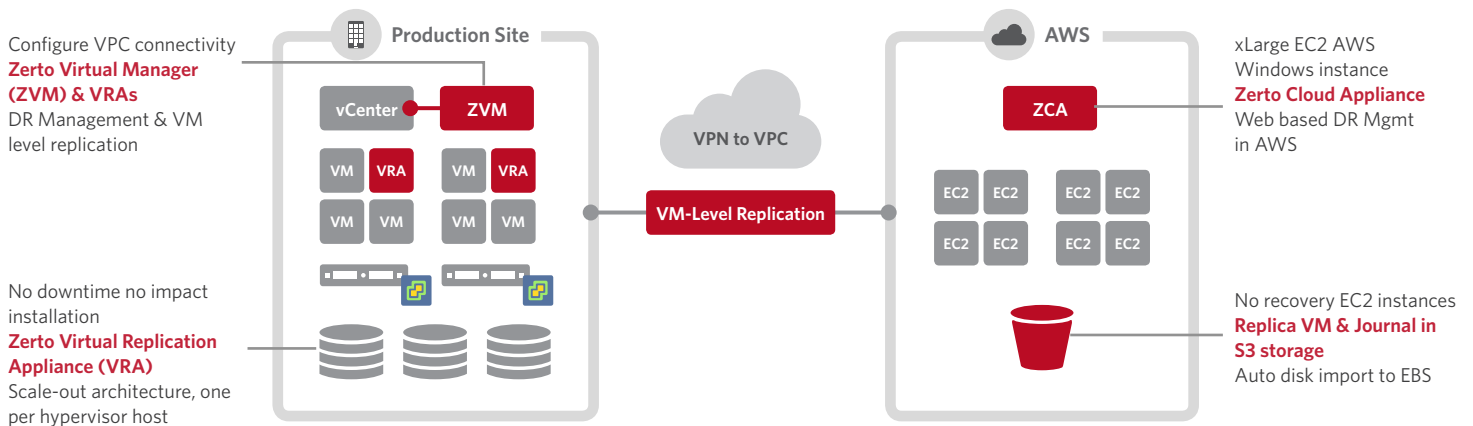
- Migrations are typically performed per-VM, with no consistency groupings of VMs to enable consistent multi-VM application migration together to the same point in time
- Existing migration solutions impact performance or cause downtime making migrations an out of hours task
- Only small numbers of VMs can be migrated simultaneously and large data sets take significant time
- Testing migrations requires significant time, resources and often results in re-synchronization delays
- Manual reconfiguration of VM networking is required increasing admin overheads
- No audit reporting of testing or migration projects

All of the above challenges make migration projects of on premise workloads and data to AWS a significant barrier to adoption by requiring significant time, resources, complexity, planning, implementation and cost.

ZERTO FEATURE BENEFITS FOR AWS MIGRATIONS

Zerto Virtual Replication solves all of the challenges of migrating any size and number of VMs making it an indispensable solution for migrations of on premise workloads to AWS. Utilizing simple scalable software that can be installed in minutes with no downtime, Zerto Virtual Replication enables seamless migration projects to be completed in a fraction of the time required by other solutions.

| Feature | Description |
|---|---|
|  Click to Move | Migrate tens to hundreds of VMs simultaneously in minutes |
|  RPO Seconds | Replica data continuously updated, seconds behind production |
|  Multi-Hypervisors | Migrate from VMware vSphere 4.0+ or Microsoft Hyper-V Server 2012 R2 |
|  Quicker Migrations | Complete any scale migration project on-time with ease |
|  DRaaS & Migrations | All the same features can be utilized for enterprise-class DRaaS to AWS |
|  Testing & Reporting | No-impact migration testing with full audit reporting built-in |
|  No-impact | Initial synchronization and continuous replication with no snapshots |
|  Simplicity | Install in minutes with no downtime then simply select the VMs to move |
|  Bandwidth Control | Maximum bandwidth throttling on a time schedule |
|  Full Automation | Replica data in S3 storage & EC2 instances automatically created |
|  Migrate Applications | Multi-VM application migrations to the same point in time |
|  Networking & Scripting | Automatic IP-reconfig with VPC, subnet, security groups and scripts |



| Component | Description |
|--------------------------------------|---|
| Zerto Virtual Manager | Zerto Virtual Manager installed in a Windows VM in the production site linked to VMware vSphere or Microsoft Hyper-V management server for VM-level integration and the Zerto interface. The ZVM requires 2 vCPUs, 4GB RAM, 40GB disk space, 1 static IP address. |
| Virtual Replication Appliance | Virtual Replication Appliance enabling VM-level replication installed on each source hypervisor host with no downtime or impact to running VMs. Each VRA utilizes 1 vCPU, 1-3GB RAM, 12GB disk space and 1 static IP address. |
| Zerto Cloud Appliance | Zerto Virtual Manager installed in an m3.xlarge Windows Server 2012 R2 EC2 instance with internet connectivity. The ZCA performs the recovery orchestration and automation for migrations and inserts the replicated data in S3 storage. Installation requires a key-pair with AmazonEC2FullAccess & AmazonS3FullAccess permissions. |
| Networking | Connectivity from the on premise ZVM and VRAs to the ZCA is required for the IP based VM-level replication. Minimum bandwidth of 5Mbps with VPN or direct connection to the VPC utilized by the ZCA required. VPC networking for migrated VMs should be configured in advance and mapped to the protected VMs for migration automation. |
| S3 Storage | All replicated data is stored in a S3 bucket automatically created in the same AWS region as the ZCA during installation to minimize cost. |
| EC2 | An EC2 import process is performed to automatically create EC2 instances with EBS disks from S3 storage for replica VMs after initiating Move, Test or Failover operations. |
| Production Site | No additional storage is required in the production site, no downtime is required for installation and the initial replication of VMs can be left running in the background as no snapshots are used for the replication of the VMs to AWS. |

SUMMARY

In comparison to per-VM, snapshot based or offline data copy methods, no other solution can match the features, speed and efficiency of Zerto Virtual Replication for migrating tens to hundreds of VMs simultaneously to AWS. Saving significant time in migration projects by moving large data sets and VMs quickly and efficiently is now possible with Zerto.

About Zerto

Zerto is committed to keeping enterprise and cloud IT running 24/7 by providing scalable business continuity software solutions. Through the Zerto Cloud Continuity Platform, organizations seamlessly move and protect virtualized workloads between public, private and hybrid clouds. The company's flagship product, Zerto Virtual Replication, is the standard for protection of applications in cloud and virtualized datacenters.

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