Zerto
a Hewlett Packard Enterprise company

Workload Mobility to AWS with Zerto

From on-premises or other cloud platforms, Zerto, a Hewlett Packard Enterprise company, makes moving to Amazon Web Services (AWS) seamless, scalable, and repeatable for all your workloads.

Harnessing the Power of the Cloud with AWS

Migration of virtualized workloads to the on-demand, reliable, scalable infrastructure of Amazon Elastic Compute Cloud (Amazon EC2) unlocks the ability to scale within minutes with an SLA commitment of 99.99% availability. Amazon EC2 offers the broadest and deepest compute platform, with over 500 instance types and a choice of the latest processor, storage, networking, operating system, and purchase model to help you best match the needs of your workload.

If your applications are containerized, migrating your Kubernetes applications to Amazon Elastic Kubernetes Service (Amazon EKS) can optimize resource efficiency, scalability, security, and availability. With Amazon EKS, you can create applications that automatically scale up and down and run in a highly available configuration across multiple Availability Zones (AZs) with out-of-the-box networking and security integrations.

Cloud Migration Planning

Whether a migration is your first time moving workloads to the cloud or it's part of an ongoing cloud migration, you want to avoid two of the biggest challenges of workload migrations: downtime and complexity. Without the right tools and planning, workload migrations can negatively impact productivity, cause stress with working nights and weekends, and easily overrun project times and costs. The right technology, on the other hand, can nearly eliminate workload downtime and allow migrations during normal business hours.

Migration projects are often derailed by the complexity of workload dependencies and lack of adequate migration testing leading to longer migration times and extended periods of downtime for applications. Many applications are comprised of multiple components spread across various workloads with dependencies on other applications and related workloads. To reduce the complexity of workload migrations, you can plan ahead to properly identify dependencies, use tools that efficiently migrate workloads at scale, and incorporate these multiple workloads and dependencies. Along with the ability to easily test these migrations, these approaches simplify workload migrations.

Zerto Makes Migration to AWS Easy

Zerto nearly eliminates downtime and complexity from migration to AWS for both virtualized and containerized workloads. Zerto is known for helping organizations achieve uninterrupted business, and that includes removing disruption from workload mobility to AWS. There are many key features and benefits that Zerto provides to make migration to AWS seamless.

Near-Synchronous Replication

With Zerto, data can be replicated in real time from your live production workloads to AWS, keeping the migration target constantly updated. This allows you to keep the production workloads running right up until the point of migration cutover so that there is no downtime needed for data synchronization. Production workloads can be shut off and migration targets turned on back-to-back, making the downtime as short as if the workloads were rebooted, picking up right where those workloads left off.

Application Consistency

Zerto uses Virtual Protection Groups (VPGs) to logically group workloads that might be dependent on or related to one another in some way. These VPGs allow for migration of an entire application stack along with all dependencies in a single logical unit. Not only are these workloads grouped together for easier management, but the VPG maintains data consistency between all workloads so that when migration cutover occurs, all components of the application are in a consistent state. A VPG can contain any number of VMs or containers, making it easy to scale migrations from dozens to hundreds of workloads.

Orchestration and Automation

Zerto uses orchestration and automation to cutover groups of workloads migrating to AWS. With a few clicks, dozens or hundreds of workloads can be migrated together, automatically converting from on-premises hypervisors like VMware to native EC2 instances and starting automatically within AWS. Zerto offers a complete API set that can be used to further automate workload migration alongside other management tools and services as needed. The combination of workload groupings, orchestration, and automation allows for easy planning of workload migrations and reduces downtime to the shortest time possible.

Non-Disruptive Testing

Zerto provides automated cutover testing into isolated network environments to execute migration testing on any scale without disrupting production workloads. This testing allows application stacks and other logical groups of workloads to be tested, making sure there are no issues after cutting over into the AWS environment. All workloads can be started up and tested as needed with automated reports indicating any issues. This testing can be performed multiple times as needed prior to production cutover to ensure a successful migration.

How It Works

Zerto migrations to AWS are built on the same technologies that power our award-winning continuous data protection (CDP) solution. Zerto incorporates virtual replication appliances (VRAs) as virtual machines or containers to move data in real time between a production environment and the target AWS environment.

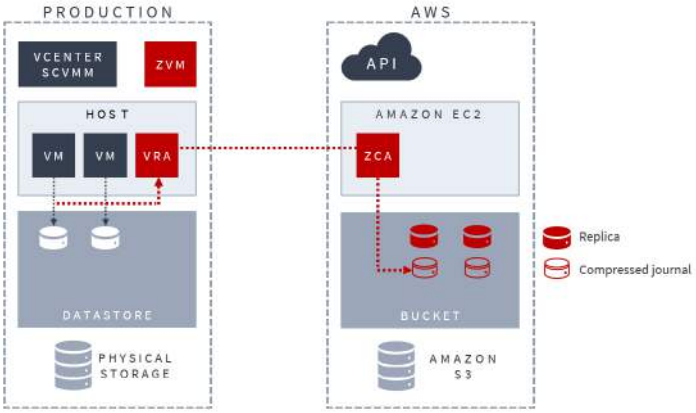

Figure 1: On-premises VMware to Amazon EC2

The Zerto Virtual Manager (ZVM) is the management interface for Zerto where an administrator connects to create VPGs, monitor replication, initiate migration tests, or perform the final migration cutover.

On AWS, the Zerto Cloud Appliance (ZCA) combines the ZVM and VRA to receive replicated data from the production environment and create the target workload instances.

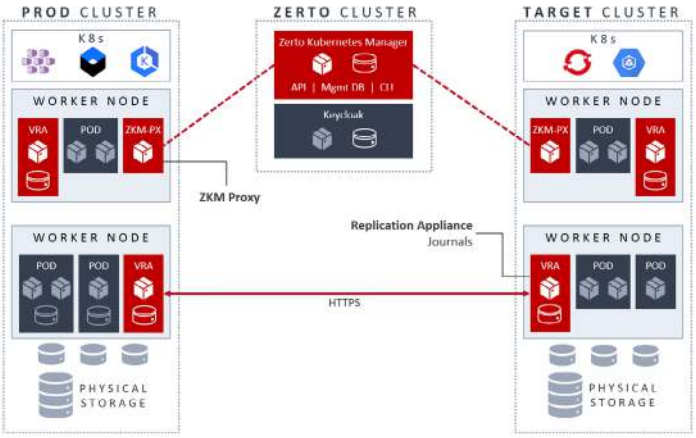

Figure 2: Kubernetes container migration to Amazon EKS

The same near-synchronous replication and virtual protection groups are used when migrating containerized applications to Amazon EKS, although the components are slightly different.

In a Kubernetes environment, Zerto deploys a cluster that functions as a manager over both production clusters and target clusters.

Then, as in a virtual environment, there are virtual appliances deployed as containers on both the production and target clusters in each worker node to perform replication. Zerto Kubernetes managers are also deployed in each cluster to facilitate monitoring, migration testing, and migration cutover.

As data is replicated in real time between production and target environments, the Zerto architecture allows for replication and migration cutover of up to thousands of workloads in a matter of minutes. No other solution architecture can migrate so many workloads so quickly at scale as Zerto.

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Why Zerto for Migration to AWS?

The key benefits of Zerto for workload migration are the elimination of migration downtime, orchestration and automation, and simplified migration at scale with application consistency. Zerto natively converts virtual workloads into Amazon EC2 instances automatically so the migrated workloads can take full advantage of the computing efficiencies and costs in AWS. Whatever the reason your organization may be migrating to AWS, Zerto can help make that migration as seamless as possible, no matter how many workloads you plan to migrate.

Promotional Credits for Zerto Migrations

By choosing Zerto for workload migrations to AWS, your organization can receive AWS Promotional Credits to offset migration costs for you and your customers—up to 25% of the first year expected AWS Annual Recurring Revenue (ARR).

Zerto License Purchase	AWS Promotional Credit
Up to $500K USD AWS ARR	15% of purchase in AWS credits
Over $500K USD AWS ARR	25% of purchase in AWS credits

Promotional credit offers are subject to change at any time and it is not guaranteed..

Examples:

- A purchase of Zerto for migration to AWS where the expected first year AWS ARR is $200K would provide $30K USD in AWS promotional credits.
- A purchase of Zerto for migration to AWS where the expected first year AWS ARR is $800K would provide $200K USD in AWS promotional credits.

For more information, please contact **info@zerto.com** or go to our website: **Zerto Platform on AWS - Migrate or Recover on AWS - Zerto**

About Zerto

Zerto, a Hewlett Packard Enterprise company, empowers customers to run an always-on business by simplifying the protection, recovery, and mobility of on-premises and cloud applications. Zerto eliminates the risk and complexity of modernization and cloud adoption across private, public, and hybrid deployments. The simple, software-only solution uses continuous data protection at scale to solve for ransomware resilience, disaster recovery, and multi-cloud mobility. Zerto is trusted by over 9,500 customers globally and is powering offerings for Amazon, Google, IBM, Microsoft, and Oracle and more than 350 managed service providers.
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