EBOOK:

Deploying Oracle workloads on VMware Cloud™ on AWS

Achieve high availability and scalability in a hybrid environment

Contents

Introduction

VMware Cloud on AWS enables enterprise IT and operations teams to leverage existing skills, while maximizing their VMware investments, without the need to buy new hardware. This offering provides a solution for customers to quickly and confidently scale capacity up or down, and also presents avenues to new opportunities through low latency access to native Amazon Web Services (AWS) products and services.

Many Oracle customers have been running VMware technologies on-premises for extended periods. All the necessary skills that have been needed to operate Oracle-based workloads on-premises for years can now be brought to AWS through VMware Cloud on AWS. This hybrid offering provides your organization the opportunity to modernize your legacy Oracle applications and migrate to newer, more innovative solutions.

In this eBook, we will touch on common customer use cases, and go into detail about how your organization can benefit from running Oracle databases and applications on VMware Cloud on AWS. We will also discuss the value of moving your Oracle Real Application Clusters (RAC) to the cloud.

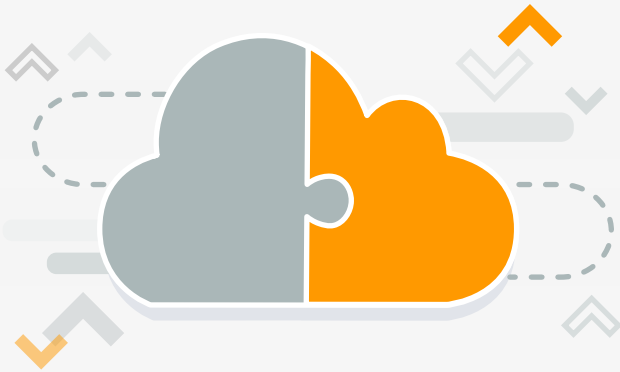
Benefits for Oracle workloads on VMware Cloud on AWS

Simplified migration

- Migrating your Oracle databases and applications to VMware Cloud on AWS is a simple process
- Moving your on-premises Oracle environment, which already employs VMware, to the hybrid cloud
- Accelerated by VMware vMotion, which makes it possible to move servers between hardware without any downtime
- Everything stays online, even as you transition to different physical hardware on AWS
- Once migration is complete, manage your Oracle environment more efficiently and productively

Accelerated provisioning

- Takes weeks or months to procure and add new bare-metal servers on-premises with no access to servers during this time
- Provisioning your Oracle environment can be done almost instantly because the underlying infrastructure is ready to use
- Everything (network, firewall, storage, compute) in VMware Cloud on AWS is provisioned



BENEFITS FOR ORACLE WORKLOADS ON VMWARE CLOUD ON AWS

Application modernization

- Employ microservices to generate new software patterns
- Move webservers to containers quickly and easily
- Cost-effectively improve performance

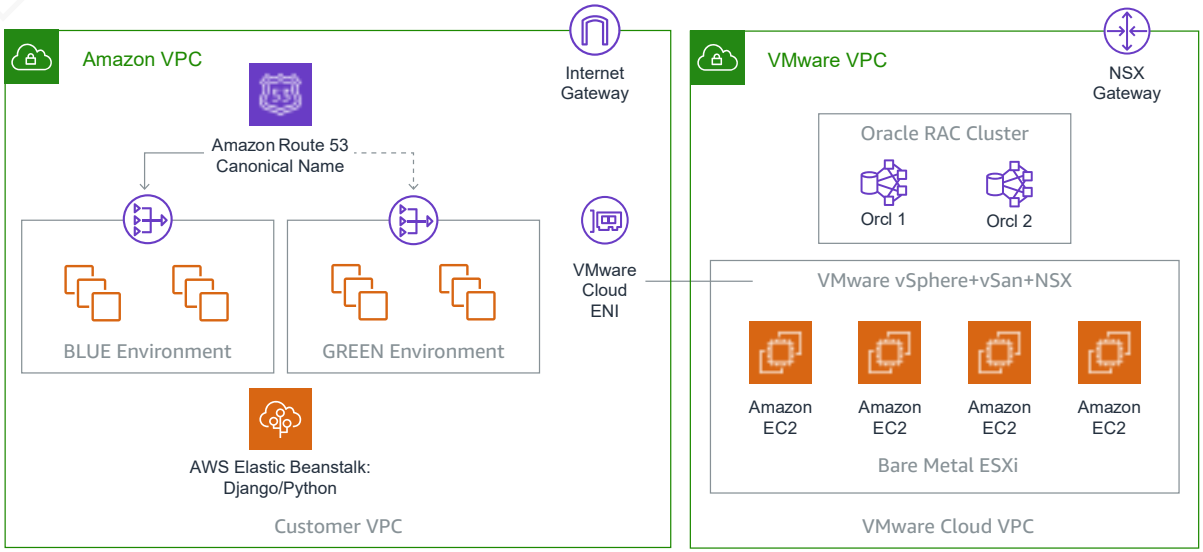
Updated Disaster Recovery strategies

- Running Disaster Recovery (DR) for Oracle on VMware Cloud on AWS provides the ability to scale compute and storage on demand
- Rapidly scale capacity to add any amount of data
- Activate Site Recovery service components quickly
- Easily deploy replication and orchestration components in the VMware Cloud on AWS Software-Defined Data Center (SDDC)

Use more than 140 native AWS services with Oracle Workloads

- Move your legacy tape backup solution to the cloud by using Amazon S3 and/or Amazon Glacier and AWS Storage Gateway for Oracle backups
- Use Amazon Elastic Load Balancer to direct traffic to web servers
- Integrate managed AWS Directory Service and/or Amazon Route 53 for your naming resolution in Oracle RAC and application servers
- Encrypt VMware Cloud on AWS storage using AWS Key Management Service

Run Oracle Real Application Clusters



Moving your Oracle databases and applications to VMware Cloud on AWS also enables you to extend your data center through the continued use of Oracle RAC on AWS. This is important, because simply migrating your Oracle environment to AWS does not make this possible, but deploying it on VMware Cloud on AWS allows you to continue to benefit from employing this solution.

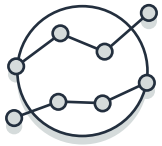
Workloads that previously could not be deployed no longer require significant platform modifications, based on the zero-downtime client connection failover that is used to accelerate deployment, and modernize disaster recovery strategies.

This solution combines the flexibility of AWS with your on-premises Oracle RAC workloads using VMware Cloud on AWS, enabling you to keep realizing the benefits of Oracle RAC's horizontal performance scaling, which provides high availability and additional failover capabilities on AWS.

The Oracle RAC extended cluster is possible using VMware Cloud on AWS Stretched Clusters. A single Oracle RAC cluster can span across two Availability Zones (AZs). This way, instead of having your Oracle DR in a second AZ, you have a single Oracle RAC cluster without the need to perform a failover or switchover to a second instance.

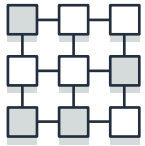
Simplified management of Oracle RAC workloads

Supporting Oracle RAC in the cloud requires shared block storage and multicast network connectivity between the Oracle RAC nodes in use. VMware Cloud on AWS meets these requirements with:



VMware NSX

Network visualization platform for connected workloads that provisions a logical overlay, and delivers the multicast networking support necessary for Oracle RAC on AWS across multiple AZs.



VMware vSAN:

Storage Area Networking that provides the shared block storage required for Oracle RAC to run smoothly and efficiently on VMware Cloud on AWS, this solution spans multiple AZs through fault domains.

This hybrid model makes it easy for your on-premises workloads to communicate with Oracle RAC nodes on VMware Cloud on AWS, and simplifies the management of both environments. It also simplifies the modernization of your applications on the cloud

While an in-cloud SDDC can be used on its own, it is more common to employ a hybrid cloud strategy. With VMware vCenter Hybrid Linked Mode, you connect the two vCenters to create a single pane of glass for hybrid cloud management, accelerate the provisioning of your SDDC, and rapidly implement new disaster recovery strategies.

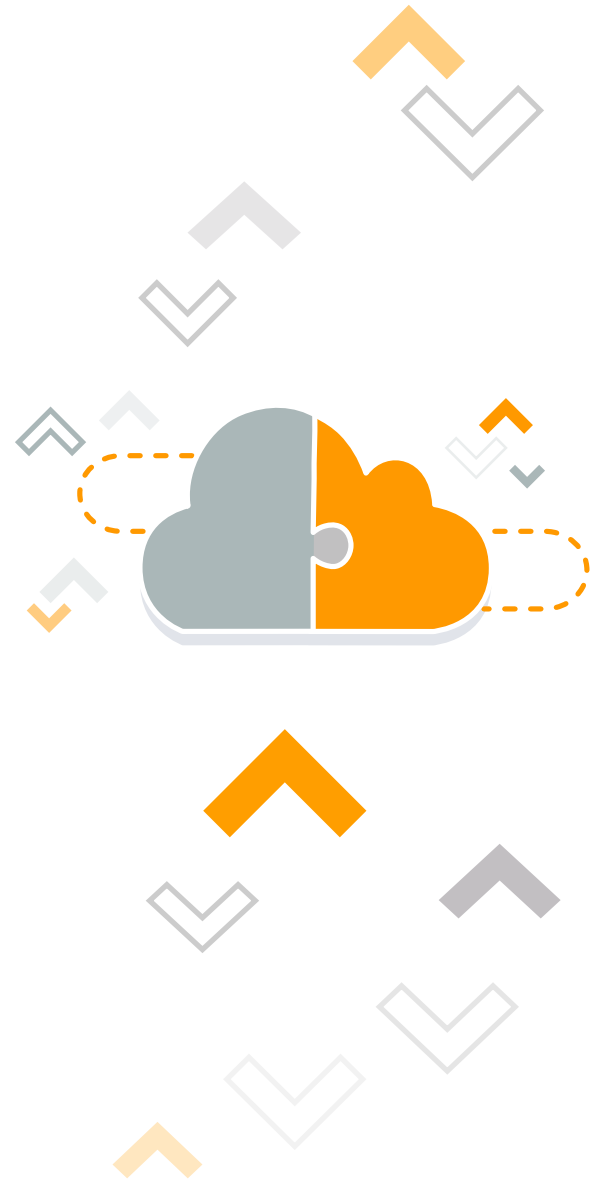
Conclusion

There are many reasons why your organization might consider migrating your on-premises Oracle environment to VMware Cloud on AWS. You may want to reduce costs by moving so you no longer have to manage, maintain, and replace your own hardware, or simplify your licensing agreements to make them more manageable.

If your organization is committed to running Oracle databases, applications, and Real Application Clusters while maintaining your VMware investments, migrating your Oracle environment to VMware Cloud on AWS should be considered. The familiar infrastructure makes the move to VMware Cloud on AWS more of a gradual transition than a full-fledged migration, and the integration with VMware vMotion and AWS Directory Service helps smooth the migration process.

Post-migration, the hybrid environment enables the simplification of workload management, with the downtime caused by having to replace failing hardware no longer a primary concern. You will also realize the value of rapid scalability by right-sizing your workloads the first time, and not having to pay for unused hardware.

To get started, contact VMware Sales or you AWS Sales Representative.



VMware Cloud on AWS Resources

VMware Cloud on AWS Home

VMware Cloud on AWS (on AWS site)

VMware Cloud on AWS (on VMware site)

Oracle on VMware Cloud on AWS

Oracle Workloads and VMware Cloud on AWS: Deployment, Migration, and Configuration

Oracle Database Performance: VMware Cloud on AWS

TCO tools

VMware Cloud on AWS Pricing Calculator

VMware Cloud on AWS Sizer and TCO

VMware roadmap

VMware Cloud on AWS Roadmap