

# VMware Cloud™ on AWS for SQL Server Workloads

## AT A GLANCE

- Support for all major native SQL Server availability options including Always On Availability Groups and Failover Cluster Instance (FCI)
- Stretched Clusters (multi-AZ deployment) for increased cluster availability
- I3 instances with local high performance NVMe drives to optimize platform performance
- R5 metal instances with Elastic vSAN backed by AWS Elastic Block Store (EBS) for capacity demanding workloads
- Hybrid Linked Mode with single console for on-premises and VMware Cloud on AWS infrastructure operations
- vSAN encryption for data disks
- Support for L2 VPN between native vSphere port groups

## KEY BENEFITS

- Ensures operational and management consistency across private and public cloud
- Eliminates the need for additional training or specialized resources with familiar VMware toolset
- Supports live migration of workloads without configuration changes or network modifications
- Lowers TCO compared to migration to other public clouds from on-premises VMware platform
- Provides easy access to AWS native services
- Extends disaster recovery with DR-as-a-Service

Hybrid infrastructures that combine service-based applications hosted in public cloud with on-premises deployments have become a favored approach to taking advantage of cloud benefits while leveraging existing on-premises investments. Although this approach brings with it considerable cost efficiency benefits and enables increased agility and flexibility, it can also create implementation and management complexities.

As one of the most virtualized enterprise applications on the vSphere platform, Microsoft SQL Server deployments range from a simple single server instance to complex and highly available geo-distributed implementations. The diversity of hosting requirements can pose several challenges, including on-demand resource extension, disaster recovery, and datacenter migration—all of which make a hybrid approach to infrastructure very attractive. But the technical implementation of a hybrid infrastructure also likely requires configuration and networking changes, application refactoring, and might include additional licensing costs.

VMware Cloud on AWS leverages the same virtualization standard and toolset as an on-premises VMware vSphere deployment, enabling customers to avoid complex application refactoring or configuration changes to SQL Server workloads. VMware Cloud on AWS is an on-demand service that lets customers run applications across vSphere-based cloud environments with access to a broad range of AWS services. Powered by VMware Cloud Foundation, this service integrates vSphere®, vSAN™ and NSX® along with VMware vCenter® management, and is optimized to run on dedicated, elastic, bare-metal AWS infrastructure. ESXi hosts in VMware Cloud on AWS reside in an AWS Availability Zone (AZ) and are protected by automatic failed host remediation.

## Use Cases

- On-demand scaling of SQL Server workloads for test and dev and/or during high load
- Simplification of DR Scenarios with or without Always-On Availability Groups
- Availability of different regions within AWS easily brings the backend database closer to customers

