This Reference Architecture indicates a High Availability option for a single VMware Cloud on AWS SDDC by leveraging multiple Availability Zones (AZ) from Native AWS while maintaining a “3-Tier App” environment On-Premises.

1. The VMware Cloud on AWS SDDC is deployed in the desired region and “Stretched” between multiple Availability Zones (AZ) within AWS for high availability as a part of the Managed Service.

2. Within the VMware Cloud on AWS service, Elastic Network Interfaces (ENI) are deployed in each AWS Availability Zone.

3. VMware Cloud on AWS service instances (vSphere, vSAN, NSX) are deployed in the same Availability Zone as the “Active Elastic Interface.”

4. Network Services are deployed between On-Premises and VMware Cloud on AWS (i.e. Route / Policy-Based L3VPN) for end-to-end connectivity.

5. On-Premises “3-Tier App” is extended to VMware Cloud on AWS using the single SDDC that is stretched between two AWS Availability Zones.

6. Backend services can be deployed within Native AWS such as Relational Database Services (i.e. RDS) for billing with “Active” and “Standby” instances in each Availability Zone.

7. The “Standby” Relational Database Service is connected via the Native AWS Virtual Private Cloud (VPC) Router.

8. The On-Premises “Cloud Administrator” is able to verify the VMware Cloud on AWS with Multi-AZ deployment via the VMware Cloud Console.

9. During a Native AWS Availability Zone failure, the Elastic Network Interfaces (ENI) update between “Active” and “Inactive”.

10. During a Native AWS Availability Zone failure, the VMware Cloud on AWS instance are migrated to another Availability Zone.