

# Software Load Balancing for VMware Cloud on AWS

## KEY BENEFITS

### Quick Provisioning

Accelerated application provisioning with zero-touch L4-L7 service lifecycle management.

### Full-Featured Load Balancing

Enterprise-grade software load balancer combining the capabilities of a traditional load balancer appliance with the elasticity and automation of AWS ELB.

### Self-Service

100% REST APIs enable policy-driven self-service for app developers and automation for IT administrators.

### Application Analytics

Real-time insights into application performance, security, and end user interactions.

### Distributed Architecture

Central control and policy management for distributed pool of load balancing resources.

### Hybrid-Cloud Load Balancing

Consistent features across on-prem and VMware Cloud. GSLB across application deployed on prem and VMware Cloud.

### Security

Security insights and health scores, mitigate DDoS attacks. Easy-to-configure iWAF to mitigate web application security risks.

## Multiple Application Environments Increase Complexity

Workloads now span on-premises and cloud environments, which significantly increase complexity for IT teams. For example, application networking functions that are effective in the data center don't work in the cloud, and cloud provider solutions don't work in the data center. Enterprises need to seamlessly integrate infrastructure environments to enable better workload portability and create consistent delivery of application and networking services across on-premises data centers and the cloud.

## Avi Networks + VMware Cloud on AWS = Speed and Simplicity

Avi Networks, now part of VMware provides a next-generation application delivery fabric - VMware NSX® Advanced Load Balancer™ that spans on-premises and cloud environments. The centrally managed solution consists of a Smart Load Balancer and Intelligent Web Application Firewall (iWAF) that provides automation, analytics, and security for all applications across hybrid environments.

VMware Cloud™ on AWS enables customers to run, manage and secure applications in a production-ready, simple and consistent hybrid IT environment. The service enables organizations to continue using existing VMware tools to manage VMware Cloud on AWS environments without having to purchase custom hardware, rewrite applications, or modify their operating model. With access to the broad range of AWS services, and the functionality, elasticity, and security customers have come to expect from the AWS Cloud, the service lays the foundation to run, manage and secure production applications across vSphere®-based private, public and hybrid cloud environments with access to innovative AWS services.

## VMware Cloud on AWS Key Benefits

Unified and operationally consistent hybrid cloud experience across vSphere-based private clouds and VMware Cloud on AWS

- Workload portability and flexible consumption options with single support owner and attractive TCO
- Familiar management tools eliminate the need to retrain staff (VMware vCenter®, VMware vSphere® API, PowerCLI and modern HTML5-based vSphere Client)
- VMware-delivered service creates zero lifecycle management while enabling customers to retain control of application management and operation
- Lays the foundation for integration of third-party tools from leading ecosystem partners

“Bringing together best-of-breed technologies and capabilities that create a seamless and flexible hybrid-cloud future for customers, VMware, Avi Networks, and AWS enable services that adapt as enterprise needs change. Whether expanding services on-premises or in the public cloud, the VMware Cloud on AWS and Avi Networks eliminate the need to make changes to operating models or architectures. The result is the most flexible approach to evolving enterprise cloud strategies.”

GURU CHAHAL  
VP OF PRODUCT  
AVI NETWORKS

### Elastic, Automated, and Analytics-Driven Application Delivery Across VMware Cloud and AWS

Avi Networks is a 100% software application delivery solution that runs across containers, virtual machines, and bare metal—on-premises and in the cloud. The platform provides elastic L4-L7 load balancing as well as detailed analytics for the application, infrastructure, and end-users. By separating the data and control plane, Avi Networks can provide centralized management and consistent operations across hybrid cloud environments and is ideal for enterprises with cloud migration and hybrid cloud initiatives.

The VMware Cloud on AWS joint solution addresses two use cases:

#### App Migration - Enterprise-Class Elastic Load Balancing for VMware Cloud

Enterprise-class Elastic L4-L7 Load Balancing for workloads in VMware Cloud providing an AWS-ELB like experience but with a powerful enterprise-class app delivery feature set across availability, security, and real-time application performance monitoring.

#### Hybrid-Cloud Load Balancing for Data Center Extension

Consistent operations across on-prem VMware based workloads and VMware Cloud, with ability to scale workloads in either environment using Avi’s GSLB and Elastic LB capabilities.

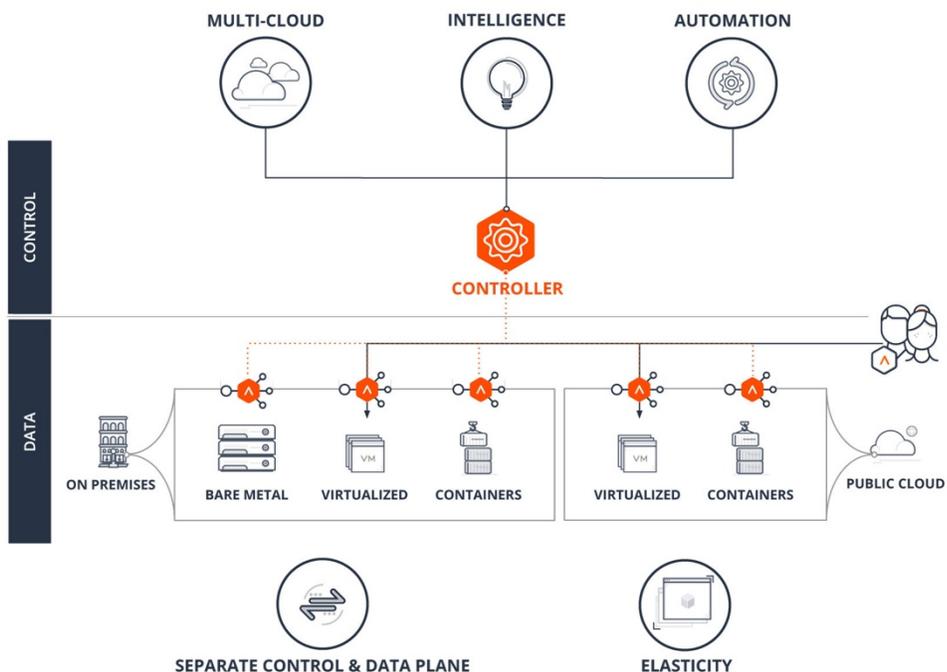


Figure 1. NSX Advanced Load Balancer Architecture

### Enhanced Security with Intelligent Web Application Firewall

Avi iWAF can help enhance application security further, so that the rules can be managed and monitored from a central location. With iWAF Avi provides simple way to enable web application firewall with pre-canned OWASP ruleset, that can be customized further to suit application needs.