

VMware NSX Advanced Load Balancer (Avi)

Automated L2-L7 Network and Application Services

Benefits of VMware Avi Solution:

VMware Avi offers enterprises automation, elastic scale, agility, flexibility, speed, and cost effectiveness – for both the network layer (L2-3) and networks services layers (L4-7).

- 97% faster scale to capacity ³
- 573% ROI in 5 years ⁶
- 43% better management efficiencies ⁴
- 8% improved developer productivity ⁵
- 47% lower cost of operations ⁵
- 52% reduction in overall costs ⁴

Introduction

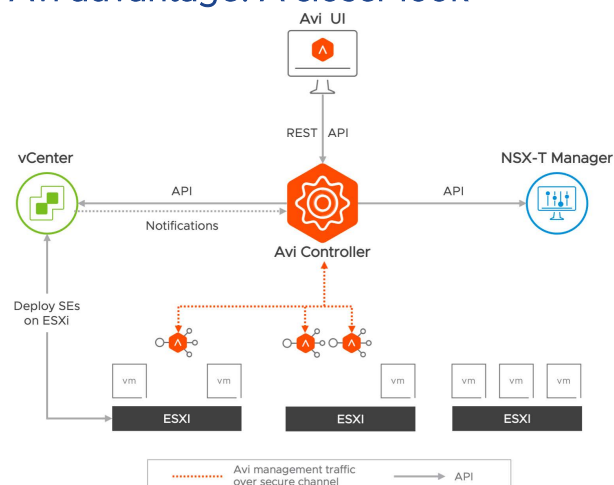
Ever so than before, applications have become the cornerstone of every single business worldwide. Customer satisfaction is tightly coupled with a superior app experience. It is also worth noting that 89% of companies have multi-cloud strategies to deliver these applications¹. More than 50% of the data is expected to originate at the edge and every other company plans to use containerized microservices². No wonder IT teams are stretched too thin striving to meet these expectations.

VMware NSX Advanced Load Balancer (Avi) is an API first, self-service Multi-Cloud Application Services Platform that ensures consistent application delivery, bringing software load balancers, web application firewall (WAF), and container Ingress for applications across data centers and clouds.

Load Balancing solution for the application era

As multi-cloud strategies gather steam, Legacy hardware-based load balancers fail to meet modern enterprise application delivery requirements. There is a need for modern software multi-cloud load balancer which separates the data and control planes keeping in line with an SDN approach to deliver application services beyond traditional load balancing solutions. Services such as real-time application analytics, security and monitoring, predictive autoscaling of application traffic, hybrid and multi-cloud global server load balancing, and end-to-end automation are must haves.

Avi advantage: A closer look

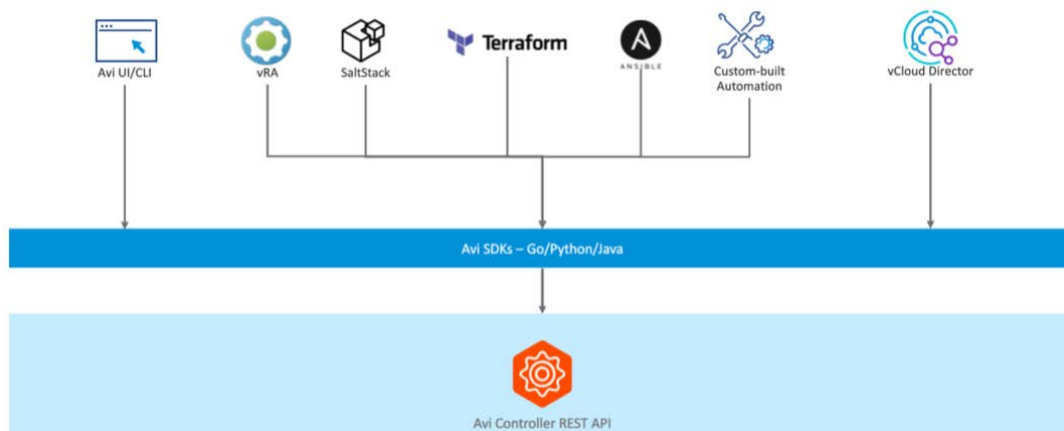


VMware's Avi is a modern, software defined elastic application delivery fabric. It is composed of a central control plane and a distributed data plane. VMware Avi Controller provides a centralized policy engine which delivers full life-cycle management for applications. Avi Service Engines (ASE) are the load-balancers that can be deployed across on-premises and clouds, natively in a fully orchestrated fashion by the Avi Controllers. The combination of Avi and NSX enables Avi Controller to be the single central point of management. As developers and network admins configure apps and load balancing instances, Avi Controller automatically spins up distributed load balancers (ASEs), and automatically places the virtual IPs on the ASEs.

Unlike traditional load balancers, Avi eliminates the problem of overprovisioning and overspending by scaling load balancers elastically based on real-time traffic. It also provides a self-healing fabric, a single point of control and multi-cloud support. Furthermore, Avi enables monitoring and visibility into client, security, and application insights through advance analytics that simplify troubleshooting and automates decisions.

Deploy and orchestrate with tools you already love

Being a self-service and API-first solution, getting started with VMWare Avi is easy. You can deploy Avi controller using any of your preferred orchestration tools, be it Python SDK, Ansible, Terraform, Go or Java libraries provided by VMware. Once deployed, you can further choose the preferred public cloud or on-premises deployment. The Avi controller further utilizes the intent of the user to provide a load balancing service that automatically creates the service engines or the load balancing entities for those applications, performs discovery and all the lifecycle management of these load balancing entities across multiple clouds. You can further integrate the Avi controller for operational simplicity using tools like Grafana, Prometheus, Splunk and thus provide more flexibility to automate API driven tasks. This simplicity depicts the VMware vision of any cloud, any device, any application.



Conclusion

Avi is VMware's flagship load balancing solution. With Avi and NSX integration, VMware delivers on the promise of network automation: agility, cost-effectiveness, and scale, from the network layers (L2-3) all the way up to the application layers (L4-7), for enterprises and service providers alike. To learn more about how VMware Avi can simplify application delivery for your organization, please visit: <https://www.vmware.com/products/nsx-advanced-load-balancer.html>

Sources: ¹Flexera [2022 State of the Cloud](#), ² Gartner 2020: Gartner Hyper Cycle for Edge Computing 2020, ³⁻⁵ [IDC 2020. The Business Value of VMware NSX Advanced Load Balancer](#), ⁶ [The Business Value of VMware NSX Advanced Load Balancer: A Study of Enterprises Using Next-Generation Application Delivery](#)