

VMware Avi: Next Generation Load Balancer for Cloud Service Providers

Modern, software-defined load balancer consumed as code and as self-service in a multi-tenant environment

Key Platform Capabilities:

- Elastic auto-scaling, self-healing and N-way active-active HA
- Integrated application performance insights with health score and latency analytics
- Built-in WAF, GSLB, and DDoS protection
- Kubernetes-native Ingress and hybrid workload support
- Multi-tenancy with shared and dedicated delivery models
- Plug and play with VMware Cloud Foundation (VCF) and VMware Cloud Director (VCD)

Why Leading CSPs Choose Avi

Proven Scale

- 40K+ VMs load balanced
- 17K+ VIPs, 9K+ GSLB services
- 2.5K+ WAF-protected apps
- Supports containers (AKS, OpenShift, Tanzu)

Automation & Simplicity

- Self-service onboarding via VCD and VCF
- API-driven provisioning
- Automated cert management and upgrades
- Real-time application telemetry and health scoring

Business Impact

- 90% faster deployment
- 43% OpEx savings
- Up to 40% TCO reduction
- Fewer support tickets through analytics-based troubleshooting

Legacy Load Balancing Fails to Meet the Demands of the Application Economy

Traditional HW (and VM) appliance-based load balancers can't keep up with the pace and complexity of today's digital applications. Enterprises are shifting to distributed, containerized, and cloud-native workloads, and they expect their CSPs to deliver agile, automated, and secure infrastructure—aligned with core cloud principles such as elasticity, multi-tenancy, automation, integrated security, and operational consistency across environments.

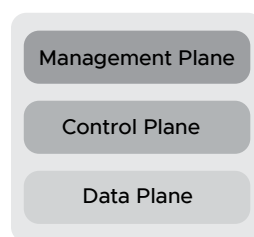
VMware Avi Load Balancer enables CSPs to meet these evolving expectations by modernizing their Load Balancer as a Service (LBaaS) offering—turning it into a scalable, differentiated, and monetizable service for VCF and hybrid cloud workloads

VMware Avi Software-Defined Platform: Built for CSP-Scale Operations

Avi separates the control and data planes using a modern software-defined architecture— enabling centralized orchestration, elastic scale-in/out, and N-way active-active high availability across distributed environments. It provides real-time, context-aware telemetry and analytics without requiring third-party tools. All Day-0 to Day-N operations—from productizing to tenant onboarding and troubleshooting—are integrated via VMware Cloud Director (VCD) and Cloud Foundation (VCF). Avi supports shared and dedicated multi-tenant models, includes built-in automation (certs, IPAM, upgrades), and uses the Avi Conversion Tool (ACT) to accelerate migration and ROI. Common Criteria certification ensures readiness for regulated and federal workloads.

Legacy load balancer architecture

Appliances-based

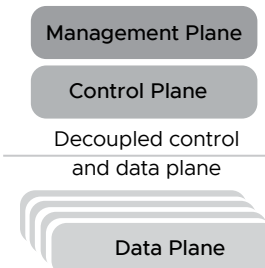


Challenges:

- Box-by-box configs
- Fixed scale
- Lacks visibility

Modern load balancer architecture

Software-defined



Benefits:

- Centralized policy and configs
- Scale-out data plane
- Application visibility

VMware Avi Load Balancer

Industry first for private cloud

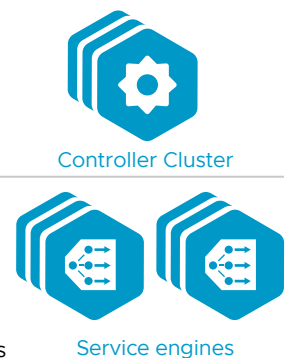


Figure 1: Software-defined architecture decouples control and data planes, enabling elastic scale, automation, and centralized visibility for CSP operations.

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Unique Advantages

20X+ Reduction in Managed Devices

Minimize hardware footprint and reduce operational complexity across tenant environments.

Auto Scale & Auto Heal

Elastically scale LB services in and out with real-time demand—ensuring resiliency and agility.

Full Automation

Streamline operations with built-in certificate management, IPAM, and seamless LB software upgrades.

Proven Scale-Out Performance

Deliver up to ~7 Tbps throughput and 10M+ SSL TPS per controller cluster—built for CSP scale.

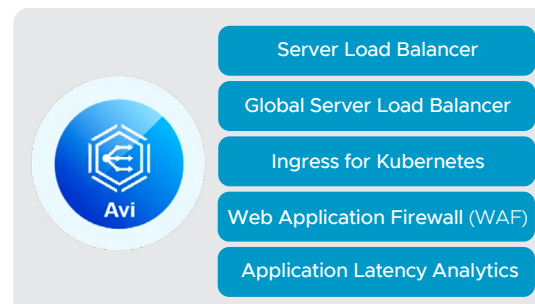
CSP Voice

“VMware Avi has greatly improved our ability to support customers—and we’re excited to expand what we offer.”

— North American CSP, Platform Architect

Unlocking Revenue Streams with Load Balancer as a Service (LBaaS)

With VMware Avi, Cloud Service Providers have the opportunity to modernize their offerings, streamline operations, and capture new revenue streams through flexible and scalable LBaaS. CSPs can leverage a range of monetization strategies, including:



- **Shared and Dedicated Multi-Tenancy:** Maximize resource utilization while maintaining security and performance across multiple tenants
- **Standard and Premium Service Tiers:** Offer pre-defined service bundles aligned to tenant needs—ranging from baseline load balancing to advanced analytics, WAF, and high availability (Premium)
- **Plus (Managed) Services:** Provide add-on services such as GSLB and DDoS protection to enhance Standard and Premium tiers, drive upsell, and increase recurring revenue
- **Fully-Managed Delivery:** Offer end-to-end LBaaS operations and support to simplify adoption for tenants

Unlike appliance-based models with rigid scale and licensing complexity, Avi offers a programmable, elastic architecture suited to multi-tenant cloud environments.

Financial & Operational Benefits for CSPs

VMware Avi helps CSPs improve profitability and scale by reducing infrastructure costs, accelerating service delivery, and simplifying day-to-day operations. Here's how core capabilities map to proven business outcomes:

Business Outcome	Key Capability	How It Delivers the Outcome
90% Faster Deployment	SDN-Based Orchestrator	Centralizes provisioning and lifecycle management, replacing manual, box-by-box configuration with API-driven automation.
43% Lower Operational Cost	Shared Multi-Tenant Architecture	Enables multiple tenants to securely share infrastructure, reducing device sprawl, energy use, and support burden.
27% Higher Developer Productivity	Self-Service via VCD	Gives developers catalog-driven control to launch and manage services independently, cutting ticket volumes and wait time.
Up to 40% Lower TCO	Elastic Scaling (In & Out)	Dynamically scales resources up or down based on real-time demand, avoiding overprovisioning and reducing hardware and energy costs.

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Tools and Resources

Official Product & Documentation

[Solutions Guide](#)

[Configuration Guide](#)

[Administration Guide](#)

Avi Datasheet

[VMware Avi Load Balancer](#)

Analyst Reports

[IDC Case Study: The Business Value of VMware Avi Load Balancer](#)

Avi Case Studies

[VMware Avi Load Balancer Resources](#)

These business outcomes reflect insights from IDC analyst research and customer-reported results, with the TCO improvement specifically based on real-world customer examples where Avi's software-defined architecture replaced legacy appliance-based load balancers.

Executive-Ready Tools and Analyst Validation

VMware partners with CSPs to accelerate time-to-market and monetization through a structured engagement model:

- **Strategic Engagement:** Collaborate with VMware's product and GTM teams for tailored guidance, early insights, and evolving playbooks to evaluate adoption paths and future monetization strategies
- **Business value and monetization:** tailored onboarding, deep dive on monetization opportunities, value-driven sales enablement and hands-on technical and product training and operationalization for your team

Proven Success with CSPs and Enterprises

- **North America CSP:** Modernized managed services using Avi with 40% TCO savings, 100s of tenants supported via built-in multi-tenancy, and troubleshooting reduced from hours to minutes
- **Large US Bank:** Migrated from legacy HW load balancers, 11K+ LB services migrated via DevOps workflows
- **Large Financial Services Firm:** Deployed Avi WAF in hybrid cloud (on-prem + AKS) for 4000+ apps

Ready to Modernize LBaaS?

To explore how VMware Avi can help you deliver scalable, differentiated, and profitable LBaaS:

- Run a side-by-side **cost analysis** of your current load balancing infrastructure vs. Avi to identify total TCO savings
- Review monetizable service tiers and deployment strategies tailored to your CSP environment
- Ask for the CSP focused extended whitepaper on the value prop and how to monetize