Avi SaaS
Operational simplicity without sacrificing flexibility or control

What is Avi SaaS?
Software as a service (or SaaS) is a way of delivering applications over the Internet—as a service. Instead of installing and maintaining hardware and software on-prem or public/private cloud, the service is hosted and accessed via the Internet, freeing IT teams from complex software and hardware management.

Avi SaaS provides a cloud-hosted option to consume application services with a SaaS subscription. It delivers enterprise class services including local and global server load balancing (GSLB), web application firewall (WAF), network and application performance analytics across multi-cloud environments. Avi SaaS allows for fast onboarding and seamless integration into customer’s existing AWS, Microsoft Azure and Google Cloud Platform (GCP) deployments.

Operational Efficiency
Avi SaaS provides automated software upgrades, proactive support for faster resolution of fault detection, vulnerabilities, application code patches, and capacity recommendations with minimal disruption to ensure application availability, security, and responsiveness. Administrators still have access to all analytics on performance, end-user interactions and security events in a single dashboard (Avi App Insights) for complete end-to-end security insights and on security intelligence and enforcement.

This enables IT teams to focus on application delivery by reducing deployment to configuring the Service Engine distribution within their application service fabric. See Figure 1

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**CHALLENGES**
- Limited resources and staff for deploying and managing infrastructure components
- Lack of visibility into traffic flows and end-user experience
- Maintaining ability for rapid expansion without own datacenter

**SOLUTION — AVI SaaS**
- Avi offers continuous monitoring, backups, patches, upgrades, tuning and more
- Easy on-ramp to multi-cloud application services.
- Reduced time for troubleshooting and root cause analysis
- Point-and-click simplicity with central control management

**BENEFITS**
- Elasticity with on-demand autoscaling architecture and per-app deployment / protection
- Real-time visibility and insights into application performance and end-user experience
- Consistent experience from on-prem to cloud, across multiple clouds
- Lower operational costs with easy one-clicks and automation

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![Avi SaaS Architecture](image-url)

**FIGURE 1:** Avi SaaS Architecture
Avi SaaS in 3 steps

It only takes 3 simple steps to deploy the Avi SaaS controller and connect to any environment.

SaaS without the compromise

The Avi SaaS solution comes without any compromise on features or function. The NSX® Advanced Load Balancer™ uses a software-defined architecture that separates the central control plane (Avi Controller) from the distributed data plane (Avi Service Engines). NSX Advanced Load Balancer is 100% REST API based, making it fully automatable and seamless with the CI/CD pipeline for application delivery. The Avi Controller is the “brain” of the entire system and acts as a single point of intelligence, management, and control for the data plane. The Avi Service Engines represent full-featured, enterprise-grade load balancers, WAF, or analytics that manage and secure application traffic, and collect real-time telemetry from the traffic flows. The Avi Controller processes this telemetry and presents actionable insights to administrators on a modern web-based user interface that provides role-based access and analytics in one dashboard. Avi App Insights include application monitoring, end-to-end timing, “network DVR” like record and review capabilities, searchable traffic logs, security insights, log insights, client insights, and more.

KEY FEATURES

Traffic Management & Service Discovery
- Local and global load balancing
- DNS / IPAM / Routing
- Health Monitoring
- TLS termination, Cert management/automation
- CI/CD, Canary

Security
- WAF
- Authentication
- Acceptlist / Denylist
- Rate Limiting
- DOS detection / mitigation
- Application and infra performance metrics
- Transaction tracing & logging

WHAT’S INCLUDED

VMware hosted Avi Controller
- Proactive Support for fault detection
- Automated Software upgrades and code patches
- Capacity recommendations
- Simplified backups and disaster recovery
- Automated threat updates

A single platform that provides
- L4-L7 load balancing
- Web application firewall
- Container ingress gateway
- Global server load balancing (GSLB)
- Real-time application analytics
- On-demand application scaling