VMware NSX Advanced Load Balancer with Cloud Services

Get the best of both worlds with flexible deployments and operational control

CHALLENGES

- Deploying and managing Load Balancing infrastructure is complex.
- Troubleshooting applications failures and identifying root-cause takes time and often result in finger pointing among teams. Maintaining security posture with patching and signature updates is cumbersome.

SOLUTION

- Cloud Services: Focus on deploying applications faster and not worry about maintaining the controller.
- Centralized licensing service: Simplify capacity management with ondemand autoscaling that enables DR and cloud bursting use cases.
- Proactive zero-touch support:
 Enables automated case creation,
 help desk and anomaly detection.
- Live security threat intelligence: WAF
 is updated with curated signatures
 and security threats in real time to
 protect web applications from
 attacks.

BENEFITS

- Fast time-to-value: brings operational services to any customer environment with ease of operations and self service
- Operational simplicity: reduces complexity in capacity management, monitoring, handling backups, DR and troubleshooting.
- Proactive resilience: proactively detects anomalies, autoscales capacity or creates support cases automatically without disruptions

Challenges with Traditional Load Balancing Approaches

Hardware load balancers or virtual appliances served traditional applications for decades. However, the prevalence of containers, newer cloud technologies and micro-services based architectures, has necessitated a new approach to both application delivery and consumption models. A few challenges created by traditional architectures include tedious manual provisioning and management of load balancers, lack of visibility to troubleshoot and resolve issues before user experience is impacted. Today's distributed application delivery infrastructure needs to minimize application downtime, and the complexity of maintaining multi-cloud environments – from on-prem data centers to the cloud. But more importantly, it needs to empower Cloud admins spend more time on applications and less time managing the infrastructure supporting them. It also needs to provide them a more efficient way to simplify Day O- Day 2 operations.

Simplify App Delivery with Multi-Cloud Application Services

Based on a software defined architecture with on-demand autoscaling and per-app/pertenant deployments, NSX ALB provides a resilient, self-healing application services fabric that elastically scales to handle unpredictable peak loads and delivers high availability across clouds. Regardless of customer's choice – managing their own Controllers and deploying Service Engines closest to the applications or getting Controller cloud Service from VMware – NSX ALB Cloud Services provides a consistent set of application services including local and global load balancing, web application firewall (WAF) and container ingress. The latest release of NSX ALB for Cloud Services is available on VMware on AWS and provides a fully managed native load balancing solution that simplifies operational complexity to a great extent. The Cloud Console connects with the Controller to provides a set of operational services (see Figure 1) to simplify operations, accelerate time-to-value, and provide proactive support and resilience.

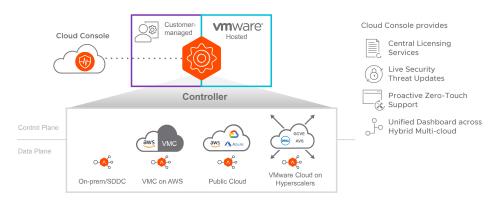


Figure 1: NSX ALB Cloud Services Deployment Architecture



BENEFITS

NSX ALB Cloud Services which includes the Cloud Console provides automated software upgrades, proactive support for faster resolution of faults detected, vulnerabilities, and capacity recommendations with minimal disruption to ensure application availability, security, and responsiveness. Administrators have access to all analytics on app performance, end-user interactions, and security events in a single analytics dashboard for complete end-to-end security insights, security intelligence and enforcement. Customers realize the following benefits by deploying NSX ALB with Cloud Services (see Figure 2).



Fast Time-to-Value

Managed deployments and maintenance Multi-tenancy Day 0 automation Self-service



Operational Simplicity

Software upgrades Health monitoring Backups and handling DR Faster troubleshooting



Proactive Resilience

Anomaly detection Reduced misconfiguration Auto sizing and scaling

Figure 2: NSX ALB with Cloud Services Benefits

FEATURES

NSX ALB Cloud Console includes the following services (see Figure 3)

- Centralized licensing service offers dynamic load balancing capacity management so that customers can react to the changing needs to their applications in real time by shifting unused capacity from one site to another, whether those loads are deployed on premise or in the cloud. It enables the cloud bursting use case and DR with fast automatic failover.
- Live security threat update feeds daily updates into the WAF to get the latest curated signatures from trusted sources.
- Proactive Zero-touch support provides automated help desk and ticket management systems. It proactively monitors the load balancing environment(s) and automatically registers a support ticket with the VMware support team and generates alarms and logs as soon as anomalies or issues are detected.
- Unified dashboard across hybrid multi-cloud provides much needed visibility of the load balancing resources, helps monitor them in real time and simplifies operational complexity in the process.



Central Licensing Services

- Shares a common pool of licenses across controllers
- · Eliminates duplicate licenses for DR sites
- · Allows for license to move with apps
- · Provides ability to cloud burst



Live Security Threats Feeds

- · Includes IP reputation, Geo DB, WAF and bot signatures
- · Eliminates all manual threat signature updates
- · Provides full control on the frequency of updates



Proactive Zero-Touch Support

- · Creates cases automatically based on predefined error conditions
- · Automatically collects logs, reducing manual operations
- Enables Ops to create custom case policies





Unified Dashboard across Hybrid Multi-cloud

· Visibility, monitoring, ease of operations

Figure 3: NSX ALB Cloud Console Features

NSX ALB Cloud Services requires an always on connection from the on-prem deployment to automatically gets security updates, handles support case information, and manages licenses for flexible capacity planning. Moreover, it allows customers to simplify operations through continuous security signature updates, and the ability to provide expediated resolution to any issues or outages in the application environment.

Learn More

To learn more about the VMware NSX Advanced Load Balancing solution with Cloud Services, please visit our website.

