

# Simplify Kubernetes Adoption

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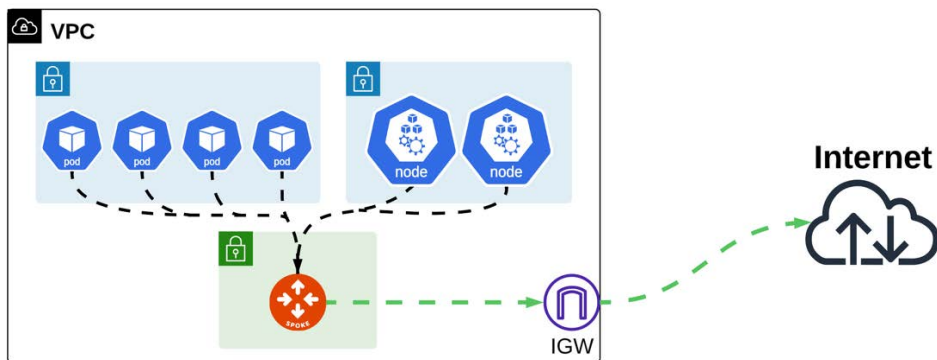
Aviatrix offers solutions for the Kubernetes ecosystem that aim to revolutionize cloud networking. The Aviatrix Distributed Cloud Firewall solution provides improved network security, cost savings, and agility for organizations.

Aviatrix Distributed Cloud Firewall for Kubernetes is explicitly designed for containerized enterprise applications and workloads. It bridges the gap between virtual machines (VMs) and Kubernetes, offering a network security solution that can adapt to scaling without manual updates. This solution utilizes the Aviatrix Distributed Cloud Firewall's full capabilities and allows Kubernetes developers to define security policies using native container workload identities.

## Aviatrix Distributed Cloud Firewall for Kubernetes

One of the critical features of the Aviatrix Distributed Cloud Firewall is its "SmartGroup" functionality, which monitors cloud environments for new VMs and applies rules based on specific criteria such as tags, labels, auto-scaling groups, and subnets. By expanding the SmartGroup identity catalog to include Kubernetes attributes like Pod and Service addresses, Aviatrix enables policies to span both Kubernetes and VM environments, ensuring network security for any application, anywhere.

The Aviatrix Distributed Cloud Firewall can be applied to various traffic patterns, including egress to the internet, East/West traffic between workloads in the cloud, and North/South traffic to on-premises data centers. Its distributed nature allows for local breakout of internet-bound traffic, resulting in cost savings, reduced bottlenecks, and improved resiliency by minimizing failure domains.



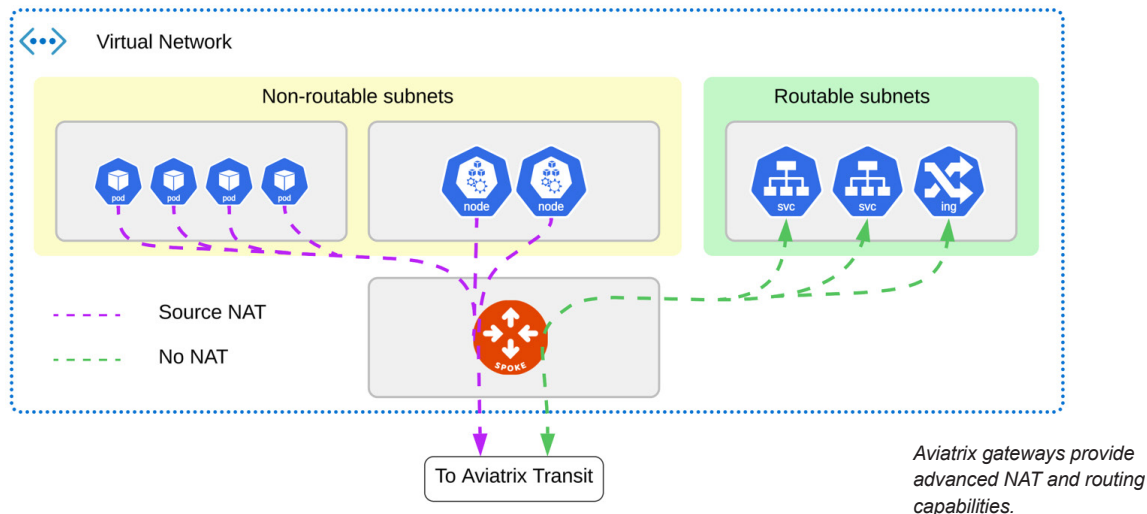
Aviatrix Distributed Cloud Firewall provides secure egress internet access.

## KEY BENEFITS

- 1. Scalable Security:** Enables scalable security without manual updates.
- 2. SmartGroup Functionality:** Tracks new VMs, applies rules based on criteria like tags and labels and ensures policies span Kubernetes and VM environments.
- 3. Efficient IP Management:** Saves IP address space by routing only a part of the VPC or VNET. Advanced NAT capabilities allow pods to connect and make it easier to create Kubernetes clusters.
- 4. Multicloud Connectivity:** Enables direct communication between pods in different clusters without needing east/west gateways.
- 5. Cost Savings:** Allows local breakout of internet-bound traffic, resulting in cost savings, reduced bottlenecks, and increased network resiliency.

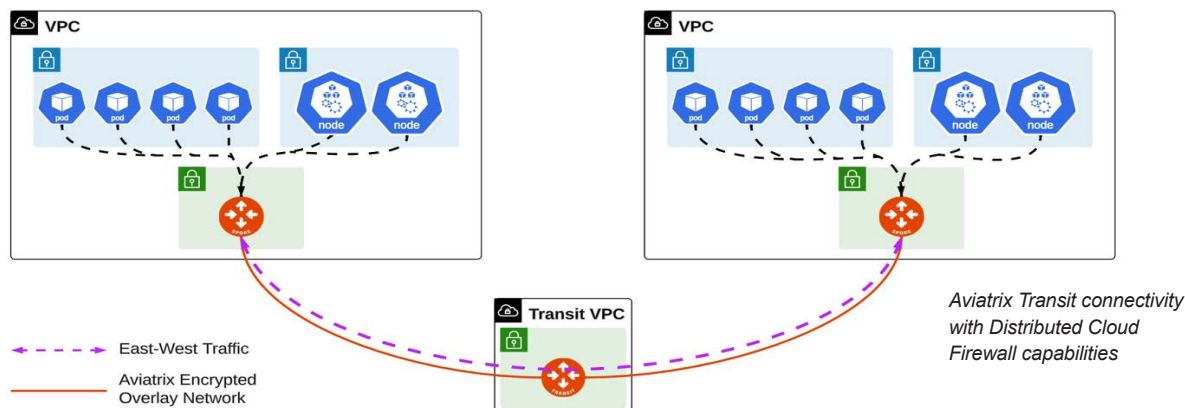
## Enabling IP Address Reusability across Kubernetes Clusters for Cookie-Cutter Deployments

Aviatrix helps organizations efficiently deploy Kubernetes clusters by optimizing IP space usage and preventing address exhaustion. Only a portion of the VPC or VNET must be routed with Aviatrix, containing the ingress controller and services. Connectivity for pods to the broader organization, both in the cloud and on-premises, is facilitated through Aviatrix's advanced NAT capabilities, providing a cost-effective solution and mitigating IP address exhaustion. Additionally, Aviatrix allows for reusable IP space for non-routed pods, simplifying the creation of cookie-cutter Kubernetes clusters and streamlining the deployment process.



## Kubernetes Multi-cluster Connectivity

Aviatrix also provides a robust solution for seamless connectivity between multi-cluster Kubernetes environments. Their transit solution enables flat network connectivity, allowing direct pod-to-pod communication across clusters without needing east/west gateways. This architecture also allows organizations to leverage Aviatrix's Distributed Cloud Firewall and other security features for enhanced network security in inter-cluster communication.



Ready to simplify your Kubernetes connectivity and network security? Explore Aviatrix's solutions today at [aviatrix.com](https://aviatrix.com) and unlock the power of seamless, scalable, and secure cloud networking. Aviatrix envisions a world in which every business, regardless of size, industry, technological expertise, or budget, enjoys access to the empowering benefits of a secure, multicloud network.

**Learn more** > [Cloud Networking for Kubernetes](#) | [Aviatrix](#)

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## About Aviatrix

Aviatrix is the cloud networking expert. We're on a mission to simplify cloud networking so companies stay agile. Trusted by more than 500 of the world's leading enterprises, our cloud networking platform creates the visibility, security, and control needed to adapt with ease and move ahead at speed. Combined with the Aviatrix Certified Engineer (ACE) Program, the industry's leading multicloud networking and security certification, Aviatrix empowers the cloud networking community to stay at the forefront of digital transformation.