

SOLUTION BRIEF

Empowering Azure Customers: Navigating the Changing Landscape of Internet Access

Microsoft Azure is bidding farewell to default internet access for new VMs. While existing VMs remain unaffected, fresh VMs built after this transformation will require a purposeful approach to inbound and outbound internet access. Aviatrix and Azure have united their strengths to provide Azure customers with a holistic range of solutions.

Instance-Level Public IPs

For Network Virtual Appliances (NVAs) within Azure, instance-level public IPs (PIPs) are a great option. PIPs allow you to assign special IP addresses to a single VM, which operate as a regional-level service for private-to-public address translation. NVAs can leverage PIPs for egress security or hybrid connectivity, providing a secure boundary for large groups of VMs.

However, PIPs are not ideal for individual VMs running application or data workloads, as assigning public endpoints to hundreds or thousands of VMs can be complex and costly. In these cases, a secure boundary or secure DMZ is more suitable, offering improved security, visibility, and control for egress traffic.

Outbound Rules

Azure provides outbound rules that work in conjunction with the Azure Public Load Balancer. Outbound rules allow VMs that are part of a backend pool to have easy and convenient outbound access through the same load balancer that services their inbound requests. This solution is ideal for VMs behind a load balancer.

However, not all VMs in Azure are behind a load balancer, and configuring each public load balancer with outbound rules might not be feasible for customers with a large number of load balancers. Additionally, outbound rules are not optimized for customers looking for a VNet-wide solution or quick deployment.

Azure NAT Gateway

For a comprehensive and easy-to-use solution, Azure offers the Azure NAT Gateway. This fully managed service simplifies configuration and deployment, intelligently handles port allocation, and supports standalone VMs as well as VMs behind load balancers. By deploying the Azure NAT Gateway and assigning it one or more PIPs, customers can quickly scale their egress traffic requirements. The Azure NAT Gateway is also fully redundant and supports availability zones for high uptimes.

Aviatrix's Distributed Cloud Firewall for Egress

For customers looking to enhance their internet egress strategy, the Aviatrix Distributed Cloud Firewall (DCF) in the Azure Marketplace is a compelling option. Aviatrix DCF provides three tiers of capability, giving customers choice and control over their internet egress solution in Azure.

The basic NAT tier of Aviatrix DCF offers enterprise-grade dynamic NAT capabilities on a per-VNet basis. It can be easily scaled to handle large amounts of traffic and becomes the default internet gateway for its resident VNet through cloud-native orchestration. Upgrading to the Aviatrix DCF for Egress tier adds additional security features such as TLS/SSL decryption, FQDN whitelisting/blacklisting, and Intrusion Detection, ensuring trusted and secure outbound traffic.

Aviatrix DCF for Egress also provides predictable billing, which does not meter on network data but only on hourly consumption, resulting in potential savings for customers. For customers looking for microsegmentation and app-to-app (east/west) security, upgrading to the full Aviatrix Distributed Cloud Firewall solution enables NSG automation, dynamic policy enforcement, and centralized policy control across the entire cloud network, including hybrid policy enforcement over VPN and ExpressRoute.

Conclusion

While the upcoming change in internet access for VMs may initially seem challenging, Azure and Aviatrix offer a range of solutions to address and navigate this change. Whether you choose PIPs, outbound rules, the Azure NAT Gateway, or Aviatrix's Distributed Cloud Firewall for Egress, the end result will be an explicit, controlled, and secure internet egress strategy. Together, Azure and Aviatrix can help you save costs and improve security for outbound internet traffic.



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