

Palo Alto Networks and Nutanix Flow Virtual Networking

Securing Nutanix Workloads Using Flow Virtual Networking (VPCs) and the VM-Series Firewall with Policy-Based Routing (PBR)

Benefits of the Integration

- Leverage current security tool sets and investments to secure your networks, data, and applications.
- Remove complexity and the need for additional resources to accelerate security operations and provide actionable insights.
- Extend and create multitenant networks that simplify and ensure segmentation of workloads across clouds.

The Challenge

A VPC or virtual private cloud is an isolated, logical unit of a provider network where a customer (tenant) has complete network control, from defining IP address ranges to the creation of subnets, gateways, and the configuration of routing tables. In the past, when a private cloud network had to be connected to a public cloud network, multiple challenges necessitated hard-to-manage workarounds or multiple products to create a hybrid cloud solution. Furthermore, the ability to secure and apply policies across clouds was difficult and clunky.

The Solution

Providing a cloud network solution with multitenant VPC capabilities, customers can have total control of where and how applications and data will communicate, even across clouds. This holistic approach removes the complexity of multiple competing products and aligns cloud strategies. Defined by software and backed by a policy engine that delivers just-in-time routing decisions, organizations can refocus critical network and security resources without increased security risks to more strategic business initiatives.

Nutanix Flow Virtual Networking

Nutanix Flow Virtual Networking for AHV virtualization brings together the VPC with other advanced virtual networking constructs to bridge traditional and cloud-native network models. This use of a software-defined approach simplifies the infrastructure and removes the need for costly hardware segmentation solutions or more complex and static physical network architectures.

Palo Alto Networks VM-Series Firewall

The Palo Alto Networks VM-Series Virtual Next-Generation Firewall consistently protects public and private clouds, virtualized data centers, and branch environments by delivering inline network security and threat prevention. Public cloud platforms and software-defined network solutions lack the threat prevention capabilities needed to keep your environment safe. VM-Series virtual firewalls augment your security posture with the industry-leading threat prevention capabilities of the Palo Alto Networks Next-Generation Firewall in a VM form factor, making it automatable, scalable, and easily deployed.

Palo Alto Networks and Nutanix Flow Virtual Networking

Nutanix provides a hybrid cloud network solution with multitenant VPC capabilities on a Nutanix AHV cluster with Flow Virtual Networking in conjunction with the Palo Alto Networks VM-Series firewall to deliver policy-based routing. Multiple network benefits and best practices extend from this combined solution, while also delivering best-in-class network security that utilizes multiple layers of defense and segmentation.

Palo Alto Networks VM-Series firewalls are deployed inside a Nutanix Flow Virtual Networking VPC on Nutanix AHV and managed by a Palo Alto Networks Panorama appliance deployed virtually outside the VPC network as a best practice.

Use Case: Securing Nutanix Workloads with Policy-Based Routing

Challenge

Customer workloads deployed in Nutanix AHV overlay networks need additional security over and above native AHV security to protect their application and data. Base-level security features that look at IP and port are not sufficient to protect workloads and data from threats at the application layer. Hence, advanced security features such as those available from a next-generation firewall become a requirement.

Solution

Palo Alto Networks and Nutanix provide a comprehensive solution for the security and networking of workloads deployed on the Nutanix Cloud Platform. Using Nutanix Flow Virtual Networking VPCs, traffic to/from VPC instances is sent to the data interface of the Palo Alto Networks VM-Series firewall deployed within a tenant's Nutanix VPC for delivery of advanced access policies and security functions. VPCs further enable control of other tenant network functions and services like IP address ranges, subnets, routing, and gateways which can then extend to public clouds like AWS and Azure, creating a hybrid cloud. This model also provides reach within VPC environments to networks beyond the scope of Nutanix VPCs.

Palo Alto Networks and Nutanix Integrations

Product integrations between Palo Alto Networks and Nutanix include:

- [VM-Series Compatibility Matrix](#)
- [Panorama Compatibility Matrix](#)
- [Panorama Plugin for Nutanix \(Dynamic Address Groups\)](#)
- [Palo Alto Networks Calm Blueprint and Nutanix FLOW](#)

About Nutanix

Nutanix makes infrastructure consistent and secure, elevating IT to focus on their business. The Nutanix Cloud Platform leverages web-scale design to combine compute, virtualization, and storage into a resilient solution with rich machine intelligence resulting in predictable performance, cloud-like consumption, and robust security for all your data and workloads. Learn more at www.nutanix.com.

About Palo Alto Networks

Palo Alto Networks is the world's cybersecurity leader. Our next-gen security solutions, expert services, and industry-leading threat intelligence empower organizations across every sector to transform with confidence. For more information, visit www.paloaltonetworks.com.



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