SOLUTION BRIEF

Simplifying security for any app at any scale on hybrid cloud and multi-cloud deployments

Securing Virtual Networks with Nutanix Flow and FortiGate-VM

The Challenge

Organizations of various sizes have cloud adoption at the center of their Digital transformation strategy. The movement of applications to hybrid cloud and multi-cloud brings immense benefits but increases the cyberattack surface. They face a double-edged sword with a tightening regulatory environment and rapidly worsening cyber threat landscape. Costs of penalties are high and risk to brand reputation is even higher. There is a critical need to identify, inspect, visualize and secure ingress and egress application traffic flows across hybrid cloud and multi-cloud networks.

The Joint Solution

Fortinet and Nutanix form a software-defined solution with secure, scalable, hyperconverged infrastructure for virtualized applications. The FortiGate-VM running on Nutanix AHV provides deeper visibility into applications and prevents known and Zero-day cyber threats, while Nutanix enables you to meet the growing demands of enterprise applications, hybrid-cloud, and multi-cloud environments.

FortiGate-VM enables hybrid cloud and multi-cloud traffic to be segmented based on the application and then inspected for known and Zero-day threats such as C&C, malware, ransomware etc. Policy based redirection from Flow™ gives NetOps and SecOps teams granular control over traffic inspection and optimizes resource consumption. Automation features and centralized management enable you to ensure that security policies can keep pace with any contextual changes in your enterprise cloud environment.

Nutanix and Fortinet have validated two modes for deployment flexibility. Choose layer 3 routed mode for FortiGate-VM on Nutanix AHV to inspect traffic while acting as a layer 3 gateway. Use layer 2 vWire mode as part of Nutanix Flow traffic redirection to transparently direct VM traffic through a FortiGate-VM firewall running on every AHV host.

- L7/ DPI / Advanced Security with FortiGate-VM
- Cluster wide deployment of service chains with Nutanix Calm
- Multiple Services Per Chain
- Policy Based Selective Traffic Redirection

Joint Solution Components

- Fortinet FortiGate Next-Generation Firewall, FortiManager, FortiAnalyzer, FortiADC, FortiMail, FortiSandbox, FortiSIEM, FortiAuthenticator, FortiNAC, FortiProxy

Joint Solution Benefits

- Segment and control East-West VM traffic
- Advanced L7 security protection and automated remediation
- Add policy based Deep Packet Inspection (DPI) between virtual machines (VMs)
- Identify and control traffic flowing into your secure environment; limit application access based on users and groups; block known and unknown threats
- Securely deploy applications faster and scale at the pace of modern business
- Predictable scale-out architecture to seamlessly expand desktop and server virtualization pilots to full production deployment

FORTINET FABRIC-READY

NUTANIX READY AHV

Diagram of Joint Solution

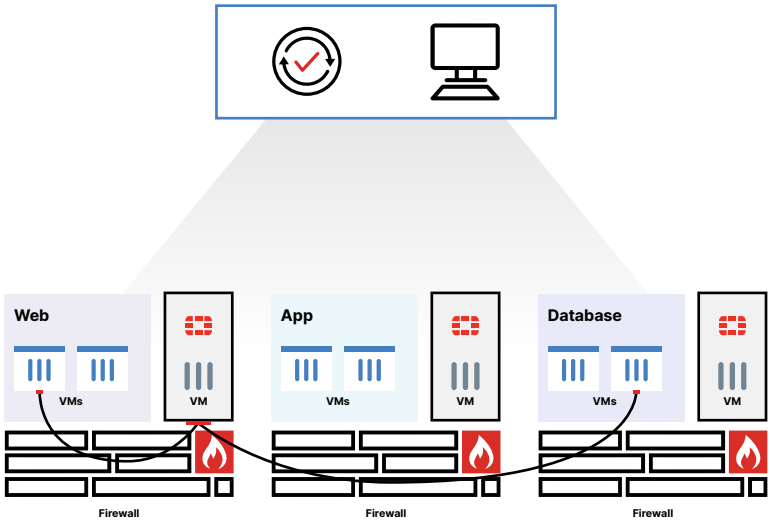

Figure 1: Service chaining Nutanix deployments with Nutanix Flow™ and FortiGate VM.

Solution Components

Fortinet Security Fabric

The Security Fabric allows security to dynamically expand and adapt as more and more workloads and data are added. Security seamlessly follows and protects data, users, and applications as they move between Internet of Things (IoT), devices, and cloud environments throughout the network.

FortiGates are the foundation of Security Fabric, expanding security via visibility and control by tightly integrating with other Fortinet security products and Fabric-Ready Partner solutions.

Fortinet FortiGate VM Next-generation Firewall

Your virtualized data center assets need advanced protection from evolving threats, both known and unknown.

FortiGate VM is a virtualized form factor of our market leading, high performance FortiGate next-generation firewall (NGFW) that delivers advanced security protection for north-south and east-west traffic in software-defined data centers and cloud. Based on the powerful FortiOS operating system and FortiGuard Threat Intelligence services, FortiGate virtual NGFW delivers industry-leading performance and layered threat protection of your software-defined data center traffic, with a single pane-of-glass to manage your physical and virtual network.

Nutanix Flow Networking

Nutanix Flow™ is a software-defined network (SDN) policy engine built into AHV virtualization, with nothing to install and no requirements to alter or reconfigure your physical networking. Flow™ provides VM level application microsegmentation, virtual network segmentation, and policy-based network service insertion.
Flow makes it easy to visualize and discover VM communications and create policy for all virtualized network traffic.

Using service insertion, Flow enables policy-based VM traffic redirection through FortiGate VM firewalls, expanding visibility and control.

About Nutanix

Nutanix, the leader in hypervconverged infrastructure (HCI), makes datacenter infrastructure and clouds invisible, elevating IT to focus on business applications and services. Its Enterprise Cloud OS software converges private, public and distributed clouds, bringing one-click simplicity and agility to infrastructure and application management. This enables IT to rapidly deliver against business needs at a favorable TCO, while retaining hardware and virtualization technology that best suit their skills.

Learn more at www.nutanix.com.

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