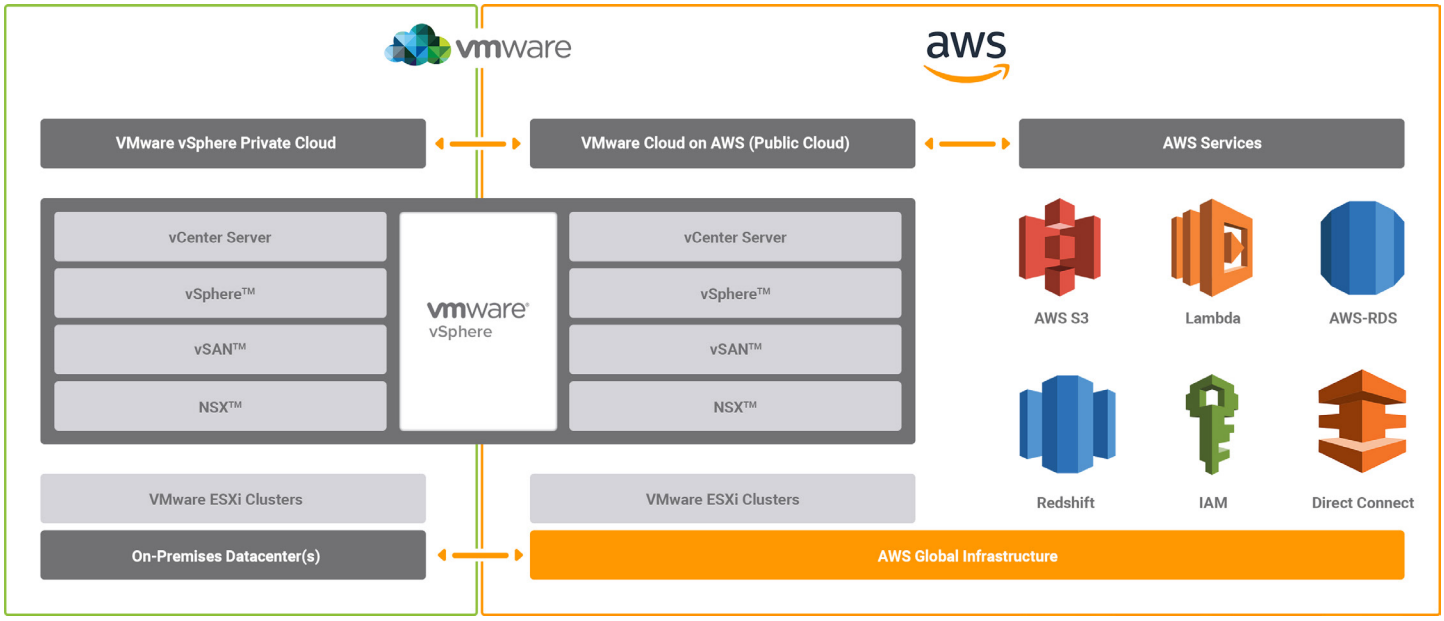
Bitdefender®

SECURING VMWARE® CLOUD ON AWS® WITH BITDEFENDER GRAVITYZONE®

vmware READY
NETWORKING AND SECURITY

The True Hybrid Cloud

VMware Cloud on AWS helps IT support business with scalable infrastructure resources and services in an agile and efficient manner. The solution, residing in the Amazon Web Services public cloud, complements the on-premises VMware infrastructure to deliver a fully integrated hybrid cloud, allowing IT to accelerate deployments while maintaining operational consistency and maximizing existing datacenter investments.



As shown in the preceding diagram, organizations using VMware Software-Defined Datacenter (SDDC) technologies, such as vSphere™ virtualization, NSX™ networking and vSAN™ storage, can leverage VMware Cloud on AWS to augment their on-premises infrastructure with the flexible capacity of Amazon Web Services (AWS) Elastic Compute Cloud (EC2) and a full range of AWS database, analytics, IoT, deployment, and other services.

Offered by VMware as a managed service, VMware Cloud on AWS automatically provisions infrastructure resources and ensures single-pane-of-glass visibility, manageability and portability of workloads across the on-premises datacenter and AWS. The resulting vSphere-based hybrid environment is connected and operationally consistent, seamlessly extending existing VMware tools and policies to the entire hybrid cloud.

VMware Cloud on AWS provides VMware customers a streamlined path to the cloud. It is optimal for datacenter expansion, cloud-based disaster recovery, migration of production workloads, and development and test of cloud-first applications.

Security Requirements for the Hybrid Cloud

In its 2017 Planning Guide for Cloud Computing, industry analysis firm Gartner highlights the importance of establishing an effective data protection strategy and governance policies that span both the datacenter and the public cloud. The key challenge of conventional solutions—which often rely on separate platforms to protect public and private clouds—is their limited ability to enforce consistent security rules while maintaining comprehensive visibility and end-to-end compliance reporting. Accordingly, hybrid cloud security must provide a unified platform covering both on-premises and cloud-based virtual machines (VMs), simplifying security management, offering single-pane-of-glass visibility, and promoting compliance across the hybrid cloud.

Another critical consideration is the solution's capacity to automatically orchestrate security policies while ensuring their relevance to the VMs they are applied to (based on the VM's role, location in the cloud and other criteria). With VMware Cloud on AWS enabling full VM portability between private and public clouds, this becomes even more important. Therefore, security tools must have insight into infrastructure operations, which can only be achieved by closely integrating security with underlying cloud platforms.

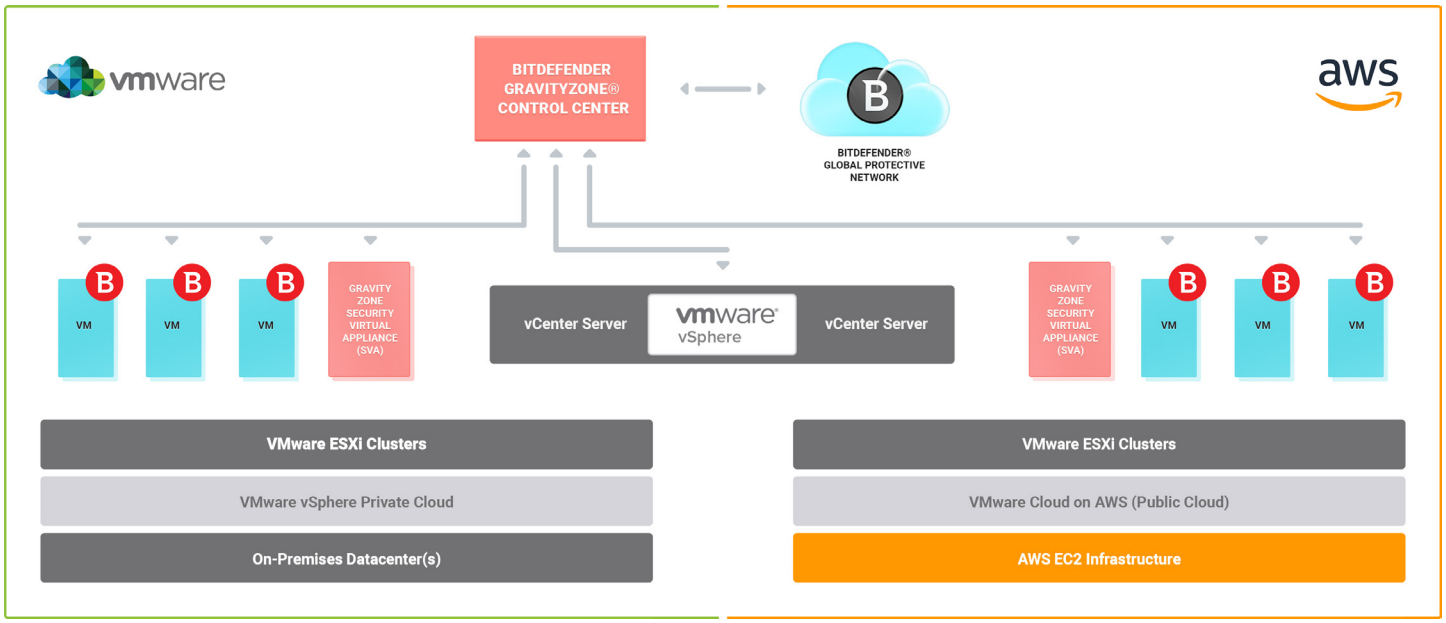
Conventional security often uses distinct agents for specific capabilities (such as antimalware, anti-exploit and application control). Customers dealing with these multiple agents experience "agent fatigue" and added security-management complexity, diminishing the operational benefits of VMware Cloud on AWS. Legacy in-guest agents perform resource-intensive antimalware tasks (like scanning and signature-database downloading) inside each VM. This lowers infrastructure utilization and degrades the end-user experience due to

excessive consumption of CPU, memory and I/O resources and incremental latency and jitter in application response. To help organizations maximize the manageability, performance and cost-related benefits of VMware Cloud on AWS, hybrid cloud security must deliver all the required security functionalities in a single "featherweight" agent.

GravityZone Security for Virtualized Environments – an Optimal Workload Security Solution for VMware Cloud on AWS

A VMware Ready solution from Bitdefender (a VMware Elite Partner), GravityZone has been fully validated on VMware Cloud on AWS. GravityZone delivers award-winning layered next-generation defenses while facilitating IT agility, operational efficiency and lower infrastructure costs. GravityZone is engineered to minimize security's impact on datacenter and cloud resources, maximizing virtualization density to increase infrastructure utilization and facilitating faster application performance to improve end-user experience.

GravityZone Architecture in VMware Cloud on AWS



A GravityZone deployment in VMware Cloud on AWS includes the following components:

GravityZone Control Center helps increase the efficiency and agility of security operations by delivering a single point of security management for the entire hybrid cloud estate. Whether hosted in the datacenter or VMware Cloud on AWS, Control Center natively integrates with both the on-premises and AWS-based vCenter servers (that can be tied together via VMware Hybrid Link Mode), which enables real-time visibility into VM instantiation and termination, movement across the hybrid cloud and protection status.

Bitdefender Global Protective Network is a global source of the latest threat intelligence data leveraged by the 500 million machines within the Bitdefender security-delivery infrastructure.

Bitdefender Endpoint Security Tools (BEST) is a single featherweight workload-security tool residing within each VM. Unlike conventional "heavy" agents, BEST offloads resource-intensive tasks to a dedicated Security Virtual Appliance (SVA). The SVA performs centralized threat analysis and maintains detection logic and algorithms for multiple VMs, deduplicating security efforts. Consequently, BEST only carries out advanced—yet light-weight—security techniques (like application control, anti-exploit and process monitoring) and delivers, in collaboration with the SVA, tunable machine-learning and network sandboxing.

Key Benefits

Maximum Protection

Security threats can cause disruptions, regulatory non-compliance and theft of valuable data—resulting in a staggering cost of $3.6 million per data breach on average (per Ponemon Institute's 2017 Cost of Data Breach Study). Built on a layered next-generation security architecture—encompassing application control, tunable machine learning, network sandboxing, and other techniques—GravityZone has consistently demonstrated in independent tests its superior efficacy against advanced threats, known and unknown. Enhanced with integrated Patch Management, GravityZone boosts infrastructure resilience, providing automatic discovery and characterization of vulnerabilities and a wide range of patches for operating systems, third-party applications and golden images.

Consistent Security Across the Hybrid Cloud

GravityZone unifies security management for all on-premises and cloud-based machines, enabling centralized policy enforcement throughout VMware Cloud on AWS. GravityZone's deep integration with vCenter Server ensures single-pane-of-glass visibility into global VM inventory and protection status as well as the underlying infrastructure's operational context. Consequently, GravityZone can automatically apply VM-appropriate security policies (e.g., based on grouping and tagging) that follow the workloads regardless of where in the hybrid cloud they operate.

Operational Efficiency and Agility

Just as vCenter Server delivers a common management layer for the hybrid infrastructure, GravityZone Control Center streamlines security administration across VMware Cloud on AWS.

Top Infrastructure Utilization and Performance

GravityZone's efficient design and patented security algorithms minimize the impact on infrastructure resources and performance, enabling up to 35% higher virtualization density and 17% faster application response than the competition, as proven in LoginVSI® tests.

Unlimited Linear Scalability

GravityZone's modular and resilient architecture provides the scalability to secure carrier-grade deployments. The platform can expand on demand in a linear and efficient fashion by adding Security Virtual Appliances or multiplying Control Center server roles, if required.

More information

For more information on how Bitdefender GravityZone can protect your VMware infrastructure, please visit bitdefender.com/sddc or contact us at www.bitdefender.com/business/inquire or (+1) 954-300-2674.

Bitdefender is a global security-technology company that provides cutting edge end-to-end cyber security solutions and advanced threat protection to more than 500 million users in more than 150 countries. Since 2001, Bitdefender has consistently produced award-winning business and consumer security technology, and is a provider of choice in both hybrid infrastructure security and endpoint protection. Through R&D, alliances and partnerships, Bitdefender is trusted to be ahead and deliver robust security you can rely on. More information is available at http://www.bitdefender.com/.

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