

SECURE APPLICATIONS, INFRASTRUCTURE, DATA, AND ACCESS WITH VMWARE VSPHERE PLATINUM

Digital is transforming organizations. At the same time, digital processes, assets, identities, and channels driving new business models and market-differentiating growth are attracting cybercriminals. Research reveals a hacker strikes every 39 seconds and the cost of a breach is rising.¹

Average financial loss from a cyberattack, now estimated at \$3.6 million, is up 62 percent in the last five years largely due to the number of days intrusions take to resolve.² In addition to managing the financial downside of a breach, businesses must invest time and funds to reassure customers that their data is secure. With threats continuing to increase in number and severity globally, the onus is on organizations to ensure comprehensive protection across their IT infrastructure and applications.

Built-In Security Everywhere

VMware vSphere Platinum delivers advanced security capabilities fully integrated into the world's leading hypervisor for complete data center protection. It combines vSphere and VMware AppDefense in a purpose-built, operationally simple solution with minimal overhead and performance impact. AppDefense is a data center endpoint security solution that embeds threat detection and response into the virtualization layer, and uses machine learning to ensure virtual machines (VMs) and applications are running in a known-good state.

vSphere Platinum operates at the heart of the secure, software-defined data center (SDDC) where organizations house their most sensitive data and business-critical applications. It extends security from the IT architectural foundation across the entire environment to comprehensively secure applications, data, infrastructure, and access (see Figure 1). In contrast to bolted-on, point security tools and reactive antivirus solutions that overconsume system resources and require monitoring specialists, vSphere Platinum embeds security everywhere. It enhances collaboration between enterprise vSphere administrators and security, compliance, and application teams, improving threat response and time to remediation.

AT A GLANCE

VMware vSphere® Platinum is a purpose-built security solution protecting enterprise applications, infrastructure, data, and access. It combines two proven products: vSphere, the industry-leading, efficient, and secure hybrid cloud platform for all workloads, and VMware AppDefense™, data center endpoint security powered by machine learning and embedding threat detection and response into the virtualization layer, to reduce security risk. While being operationally simple, vSphere Platinum ensures applications and virtual machines are running in their known-good states, with minimal overhead and performance impact.

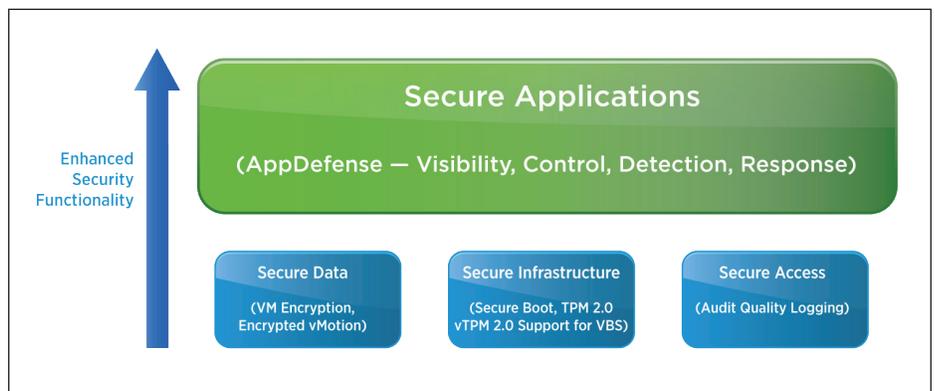


Figure 1. vSphere Platinum Secures Applications, Infrastructure, Data, and Access

KEY HIGHLIGHTS

- Built on the industry-leading, efficient, and secure hybrid cloud platform for all workloads.
- Solution secures applications, infrastructure, data, and access.
- Hypervisor, endpoint security, behavioral analytics, and machine learning deliver operationally simple security.
- Minimal overhead and performance impact.
- Solution fosters collaboration among vSphere administrators, security, compliance, and application teams.

Secure Applications With Purpose-Built VMs

Innovative organizations use vSphere Platinum to safeguard their hybrid cloud environments powering digital transformation. They address in-guest threats by protecting the integrity of applications running on vSphere with AppDefense. Instead of chasing threats, AppDefense enables enterprises to

- Understand an application's intended state and behavior, or what it is supposed to do, then monitor for changes to that intended state.
- Respond fast to any change from the known-good state, indicating a threat.
- Ensure all VMs and applications run in known-good states, removing the burden of detecting threats that may not fit a known signature.

AppDefense locks down the guest operating system (OS) for all applications, the VMware application stack, and third-party applications. It gathers inventory data on VMs and applications from the VMware centralized management application, development tools, and automation frameworks. Machine learning algorithms are applied to discover the intended state, establish the known-good behaviors for the application and VM, detect anomalies, and prevent further deviation, ensuring the integrity of the applications, infrastructure, and guest OS.

AppDefense also provides a rich set of automated or orchestrated incident response mechanisms to address attacks. Detailed visibility improves change management and compliance reporting processes while machine learning simplifies and automates auditing and application reviews.

Secure Data With Encryption

Enterprise stores of valuable personally identifiable information (PII) and intellectual property (IP) entice attackers seeking to wreak havoc and enjoy ransomware pay days. vSphere Platinum protects against unauthorized data access both when data is in motion and at rest, across the hybrid cloud. vSphere Platinum features FIPS 140-2 Validated VM encryption and encrypted vMotion to enable the live migration of running VMs from one physical server to another with zero downtime, ensuring continuous service availability and complete transaction integrity.

Secure Infrastructure Through Validation and Attestation

vSphere Platinum delivers comprehensive built-in security at the foundation of a secure SDDC. Its features and capabilities include Secure Boot for ESXi which ensures that only VMware and partner-signed code is running in the hypervisor and Secure Boot for Virtual Machines which helps to prevent image tampering and unauthorized component loading. With support for TPM 2.0 for ESXi, vSphere Platinum enables hypervisor integrity by validating the Secure Boot for ESXi process and enabling remote host attestation. In vSphere Platinum, Virtual TPM 2.0 provides the necessary support for guest OS security features while being operationally simple. vSphere Platinum also supports Microsoft Virtualization-based Security (VBS) for enterprises running Windows 10 and Windows Server 2016 security features, such as Windows Defender Credential Guard, on vSphere.

Secure Access With Greater Visibility

Audit quality logging in vSphere Platinum ensures authorized administration and control by providing high-fidelity visibility to user activity. vSphere Platinum maximizes the efficiency and effectiveness of virtualization and security operations while streamlining the application security readiness review process. It enables a simple and powerful way to maintain existing workflows while continuously monitoring for threats.

Security Supporting Business Agility

vSphere Platinum fosters unprecedented collaboration among vSphere administrators and security, compliance, and application teams. vSphere Platinum empowers vSphere administrators to help shrink the attack surface and reduce the risk of security compromise in the enterprise. It provides administrators visibility into the intent of VMs and a detailed inventory of apps while increasing understanding of application behaviors and providing alerts about potential issues and deviations. vSphere administrators choosing vSphere Platinum gain a simple, light-weight, and scalable security solution with better protection—without agents to manage and with minimal overhead and performance impact. vSphere Platinum makes it easy to leverage existing technology and knowledge of what is already running in the data center with the hypervisor's unique visibility, automation, and isolation qualities to improve security across the enterprise.

Concurrently, security, compliance, and application teams using vSphere Platinum can better support security and compliance efforts. They improve visibility into application behaviors and VM purpose while more quickly detecting, analyzing, and responding to threats. Behavioral analytics and machine learning in vSphere Platinum increase the accuracy of threat detection while big data correlation improves identification and context in a cloud SaaS model. Security, compliance, and application teams working in conjunction with vSphere administrators using vSphere Platinum deliver greater protection while increasing business agility.

With deep integrations, vSphere Platinum works seamlessly with other VMware products, including VMware vSAN™, VMware NSX® and VMware vRealize® Suite, to provide a complete security model for the data center and extension to hybrid cloud.

Learn more at <https://vmware.com/products/vsphere>.

¹ University of Maryland. "Clark School Study by Michel Cukier," February 10, 2017.

² Ponemon Institute. "2017 Cost of Data Breach Study," June 13, 2017.