VMware vShield App with Data Security

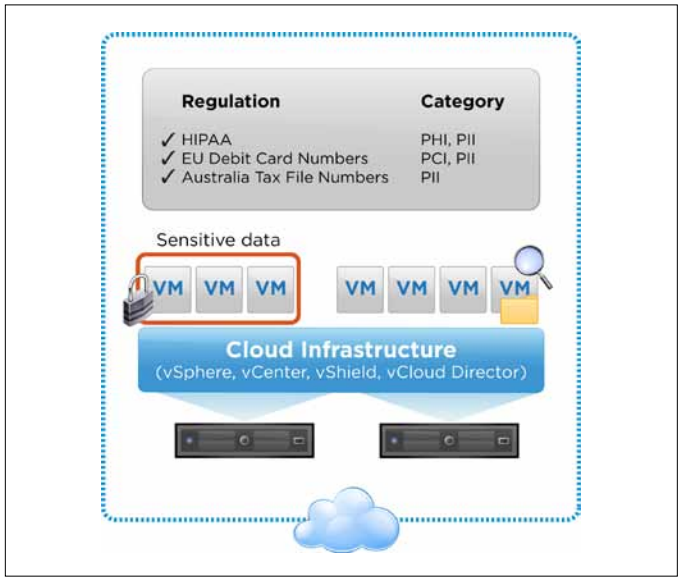
Protect Applications from Network-Based Attacks and Discover Sensitive Data

AT A GLANCE

VMware vShield™ App with Data Security, part of the VMware vShield family of virtualization security products, protects applications and data in the virtual datacenter from network-based attacks. Organizations gain visibility and control over network communications between virtual machines. The product also scans within virtualized workloads for sensitive data, such as credit card information, and reports violations of regulations (such as PCI-DSS), enabling IT organizations to quickly assess the state of compliance with regulations from around the world. Also included is VMware vShield Endpoint, which offloads antivirus file scanning, minimizing antivirus "storms."

KEY BENEFITS

- Increase visibility and control over network communications between virtual machines.
- Reduce the risk of noncompliance through visibility into sensitive data stored in virtual machines.
- Eliminate the need for dedicated hardware and VLANs to separate security groups from one another.
- Optimize hardware resource utilization while maintaining strong security.
- Simplify compliance with comprehensive logging of all virtual machine network activity.



vShield App with Data Security enables granular policy enforcement using security groups.

What is vShield App with Data Security?

vShield App with Data Security is a hypervisor-based application-aware firewall solution for virtual datacenters. It provides dynamic discovery of sensitive data, such as credit card information, that might be stored in files of unstructured data resident in virtual machine containers. Administrators can meet regulatory compliance audits by using this product to scan data centers, clusters or resource pools for the presence of sensitive data.

The product plugs directly into VMware vSphere® to protect against internal network-based threats and reduce the risk of policy violations within the corporate security perimeter. To accomplish this, the product uses application-aware firewalling with deep packet inspection and connection control based on source and destination IP addresses.

It also simplifies policy control by enabling IT to rapidly create business-relevant security groups, and its flow-monitoring controls help IT analyze virtual machine network traffic and dynamically enforce security group policies. Administrators can centrally manage vShield App with Data Security through the included vShield Manager console, which integrates seamlessly with VMware vCenter™ Server to facilitate unified security management for virtual datacenters.

The product also eliminates dependence on hardware and legacy controls such as vLANs, resulting in reduced hardware and policy sprawl that is cost-effective and goes beyond the limitations of physical security.

How Does vShield App with Data Security Work?

The product provides an administrator console for managing sensitive data discovery policies. Administrators form a policy by selecting applicable regulations to scan across target virtual machine containers—datacenters, clusters and resource pools. Files to scan can be further filtered by file extension, size or date modified. Scan output can identify datacenters, clusters, virtual machines and filenames that are not compliant with the selected policies. Administrators can use Representational State Transfer (REST) APIs to remediate noncompliant files.

vShield App with Data Security installs on each vSphere host, controlling and monitoring all network traffic on the host, even for packets that never cross a physical network interface card (NIC). The product can create and enforce policies based on administrator-defined, business-relevant security groups instead of physical boundaries or static assumptions about application deployments.

It also provides a centralized interface that leverages vCenter Server to consistently apply these policies across multiple vSphere hosts in the virtual datacenter.

How is vShield App with Data Security Used?

- **Meet compliance audits of data on virtualized hosts** – Using REST APIs, administrators can manually or programmatically perform scans to validate compliance with selected policies.
- **Supplied templates** are selected by the administrator to form a policy which is then applied against specific virtualized resources to be scanned
- **Output from scans for sensitive data** are placed in a report that can be used to identify and quarantine non-compliant virtual machines
- **Provide application aware protection** – Administrators can define and enforce granular policies for all traffic that crosses a virtual NIC, increasing visibility over internal virtual datacenter traffic while helping to eliminate detours to physical firewalls.
- **Maintain change-aware protection** – Firewall protection is continuous as virtual machines migrate from host to host, helping to ensure that network topology changes do not impact application security.
- **Efficiently manage dynamic policies** – Administrators have a rich context for defining and refining internal firewall policies as business needs evolve over time.
- **Reduce botnet risks** – Security administrators can protect against botnets and other attacks by dynamically allocating ports to trusted applications.
- **Control access to shared resources** – Security administrators can restrict access to shared services such as storage and backup on vSphere hosts according to IP address.
- **Accelerate IT compliance** – Visibility and control over virtual machine network security increases, and logging and auditing controls enable enterprises to demonstrate compliance with internal policies and external regulatory requirements.

Key Features

Sensitive Data Discovery

- Policy Management console lets administrators select regulations to be used in compliance scans.
- Organizations can choose from more than 80 templates of regulations, such as PII (personally identifiable information), PCI-DSS cardholder data and PHI (protected health information), from around the world (North America, EMEA, Asia-Pacific).
- Output report identifies which scanned resources contain data that violates selected compliance regulations.
- Functionality can be programmed using REST APIs or the operator console.
- Infected virtual machines are quarantined and remediated through VMware vCenter Configuration Manager.

Firewalls

- Hypervisor-level firewall provides inbound and outbound connection control enforced at the virtual NIC level through hypervisor inspection, supporting multihomed virtual machines.
- Layer 2 firewall (also known as a transparent firewall) protects against multiple types of attacks, such as password sniffing, DHCP snooping, and Address Resolution Protocol (ARP) spoofing or poisoning attacks. It also provides complete isolation of SNMP traffic.
- Protection can be enforced according to network, application port, protocol type (TCP, UDP) or application type.
- Protection is dynamic as virtual machines migrate.
- IP-based stateful firewall and application layer gateway supports a broad range of protocols, including Oracle, Sun Remote Procedure Call (RPC), Microsoft RPC, LDAP and SMTP. The gateway improves security by opening sessions (ports) only as needed. For a complete list of supported protocols, see the VMware vShield Administration Guide.

Flow Monitoring

- Administrators can observe network activity between virtual machines to help define and refine firewall policies, identify botnets, and secure business processes through detailed reporting of application traffic (application, sessions, bytes).

Security Groups

- Administrators can define business-relevant groupings of any virtual machines by their virtual NICs.

Policy Management

- vShield Manager provides control of product features, many of which are also accessible through the vCenter Server interface.
- Administrators can enforce policies on security groups, vCenter Server groupings and TCP-5 tuple (source IP, destination IP, source port, destination port, protocol).
- REST APIs provide a programmable interface for management and policy enforcement.
- The product supports integration with enterprise security management tools.

IP Addressing

- Flexible IP addressing includes the ability to use the same IP address in multiple tenant zones to simplify provisioning.

Logging and Auditing

- Logging is based on industry-standard syslog format.
- REST APIs and vShield Manager provide access to logging and auditing tools.
- Administrator defines logging on and off for firewalls at rule level.

Supported Releases

For information on supported releases of vSphere environments, visit http://vmware.com/products.

Related Products

The vShield family of security products also includes VMware vShield Edge for perimeter security; VMware vShield Endpoint for enhanced endpoint security and performance; vShield Manager; and vShield Bundle, which includes all products.

Find Out More

For information or to purchase VMware products, call 877-4-VMWARE (outside North America, +1-650-427-5000), visit http://www.vmware.com/products, or search online for an authorized reseller. For detailed product specifications and system requirements, refer to the VMware vShield Administration Guide at http://www.vmware.com/pdf/vshield_41_admin.pdf.

For additional information on vShield products, visit http://vmware.com/products.

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