Virtualization and cloud computing have changed the face of today’s data center. Yet as organizations move from physical environments to a mix of physical, virtual, and cloud, many have addressed the prevailing threat landscape with yesterday’s mix of legacy security solutions. The results can actually threaten desired performance gains—causing undue operational complexity, leaving unintentional security gaps, and ultimately hindering the organization’s ability to fully invest in virtualization and cloud.

Trend Micro Deep Security provides a comprehensive server security platform designed to protect your virtualized data center from data breaches and business disruptions while enabling compliance. This agentless solution simplifies security operations while accelerating the ROI of virtualization and cloud projects. Tightly integrated modules easily expand the platform to ensure server, application, and data security across physical, virtual, and cloud servers, as well as virtual desktops. So you can custom tailor your security with any combination of agentless and agent-based protection, including anti-malware, web reputation, firewall, intrusion prevention, integrity monitoring, and log inspection. The result is an adaptive and efficient server security platform that protects mission-critical enterprise applications and data from breaches and business disruptions without expensive emergency patching.

**KEY FEATURES**

**Maximize Operational Cost Reductions**
- Reduces complexity with tight integrations to management consoles from Trend Micro, VMware, and enterprise directories
- Provides vulnerability protection to prioritize secure coding and cost-effective implementation of unscheduled patching
- Eliminates the cost of deploying multiple software clients with a centrally managed, multi-purpose software agent or virtual appliance
- Reduces management costs by automating repetitive and resource intensive security tasks, reducing false-positive security alerts, and enabling workflow of security incident response
- Significantly reduces the complexity of managing file integrity monitoring with cloud-based event whitelisting and trusted events

**Prevent Data Breaches and Business Disruptions**
- Detects and removes malware in real time with minimal performance impact
- Blocks malware that attempts to evade detection by uninstalling or otherwise disrupting the security program
- Shields known and unknown vulnerabilities in web and enterprise applications and operating systems
- Detects and alerts suspicious or malicious activity to trigger proactive, preventative actions
- Leverages the web reputation capabilities of one of the largest domain-reputation databases in the world to protect users from accessing infected sites

**Achieve Cost-effective Compliance**
- Addresses major compliance requirements for PCI DSS 2.0, as well as HIPAA, NIST, and SAS 70 with one integrated and cost-effective solution
- Provides detailed, auditable reports that document prevented attacks and policy compliance status
- Reduces the preparation time and effort required to support audits
- Supports internal compliance initiatives to increase visibility of internal network activity
- Leverages proven technology certified to Common Criteria EAL 4+
DEEP SECURITY PLATFORM MODULES

Anti-Malware
• Integrates VMware vShield Endpoint APIs to protect VMware virtual machines against viruses, spyware, trojans and other malware with zero in-guest footprint
• Delivers an anti-malware agent to extend protection to physical servers as well as public cloud servers
• NEW! Now includes improved performance through ESX level caching and deduplication.
• Optimizes security operations to avoid antivirus storms commonly seen in full system scans and pattern updates
• Tamper-proofs security from sophisticated attacks in virtual environments by isolating malware from anti-malware

Web Reputation
• Integrates with the Trend Micro™ Smart Protection Network™ for web reputation capabilities that strengthen protection for servers and virtual desktops
• Provides agentless web reputation on the same virtual appliance as agentless anti-malware and intrusion prevention for greater virtual server security without added footprint

Intrusion Detection and Prevention
• Protects against known and zero-day attacks by shielding known vulnerabilities from unlimited exploits
• Examines all incoming and outgoing traffic for protocol deviations, policy violations, or content that signals an attack
• Automatically shields newly discovered vulnerabilities within hours, pushing protection to thousands of servers in minutes without a system reboot
• Assists compliance (PCI DSS 6.6) to protect web applications and the data they process
• Defends against SQL injection, cross-site scripting, and other web application vulnerabilities
• Shields against vulnerabilities until code fixes can be completed
• Includes out-of-the-box vulnerability protection for all major operating systems and over 100 applications, including database, web, email, and FTP servers
• Provides increased visibility into, or control over applications accessing the network

Bidirectional Stateful Firewall
• Decreases the attack surface of physical, cloud, and virtual servers with fine-grained filtering, design policies per network, and location awareness for all IP-based protocols and frame types
• Centrally manages server firewall policy, including templates for common server types
• Prevents denial of service attacks and detects reconnaissance scans

Log Inspection
• Collects and analyzes operating system and application logs for suspicious behavior, security events, and administrative events across your datacenter
• Assists compliance (PCI DSS 10.6) to optimize the identification of important security events buried in multiple log entries
• Forwards events to SIEM system or centralized logging server for correlation, reporting, and archiving

Integrity Monitoring
• Monitors critical operating system and application files, such as directories, registry keys, and values, to detect and report malicious and unexpected changes in real time
• NEW! Utilizes Intel TPM/TXT technology to perform hypervisor integrity monitoring. Monitors for any unauthorized changes to the hypervisor, thereby extending security and compliance of virtualized systems to the hypervisor.
• Reduces administrative overhead with trusted event tagging that automatically replicates actions for similar events across the entire data center
• Simplifies administration by greatly reducing the number of known good events through automatic cloud-based whitelisting from Trend Micro Certified Safe Software Service

DeeP SECURITY PLATFORM MODULES
Deep Security is specifically designed for virtual environments. Its agentless architecture addresses AV storms, minimizes operational complexity of security and allows organizations to increase VM densities and accelerate virtualization and cloud adoption. Developed in close collaboration with VMware, Deep Security is the first product in its category to offer support for VMware vSphere 5.1 and VMware vShield Endpoint 5.1. Deep Security also provides full backward compatibility with vSphere 4.1 and 5.0 environments. The Deep Security 9 Manager also supports mixed mode VMware environments supporting both vSphere 5.1 and vSphere 5.0 protected by the Deep Security 9 or 8 virtual appliances.

PLATFORM ARCHITECTURE

Deep Security Virtual Appliance. Transparently enforces security policies on VMware vSphere virtual machines for agentless anti-malware, web reputation, intrusion prevention, integrity monitoring, and firewall protection—coordinating with Deep Security Agent, if desired, for log inspection and defense in depth.

Deep Security Agent. This small software component deployed on the server or virtual machine being protected enforces the datacenter’s security policy (anti-malware, web reputation, intrusion prevention, firewall, integrity monitoring, and log inspection).

Deep Security Manager. Powerful, centralized management enables administrators to create security profiles and apply them to servers, monitor alerts and preventive actions taken in response to threats, distribute security updates to servers, and generate reports. Event Tagging functionality streamlines the management of high-volume events.

Smart Protection Network. Deep Security integrates with this next-generation cloud-client infrastructure to deliver real-time protection from emerging threats by continuously evaluating and correlating threat and reputation intelligence for websites, email sources, and files.

Deep Security Helps You Resolve Key Business Issues

Virtual Patching
Shield vulnerabilities before they can be exploited, eliminating the operational pains of emergency patching, frequent patch cycles, and costly system downtime.

Virtual Desktop and Server Security
Protect virtual desktops and servers against zero-day malware while minimizing operational impact from resource inefficiencies and emergency patching.

Compliance
Achieve and prove compliance to a number of regulatory requirements including PCI DSS 2.0, HIPAA, FISMA/NIST, NERC. SAS 70 and more.

Integrated Server Security
Consolidate all server security point products into one comprehensive, integrated and flexible platform that optimizes protection across physical, virtual, and cloud servers.

Cloud Security
Extend your datacenter security policies to your public and hybrid cloud workloads and manage both datacenter and cloud workloads through a single pane of glass. Deep Security combines advanced technologies such as intrusion prevention and integrity monitoring with policy-based key management technology, available through its integration with SecureCloud, thereby providing server, application and data security for servers in the cloud.
DEPLOYMENT AND INTEGRATION

Rapid Deployment Leverages Existing IT and Security Investments

• Integration with vShield Endpoint and VMsafe™ APIs as well as VMware vCenter enables rapid deployment on ESX servers as a virtual appliance to immediately and transparently protect vSphere virtual machines

• Detailed, server-level security events are provided to a SIEM system, including ArcSight™, Intellitactics, NetIQ, RSA Envision, Q1Labs, Loglogic, and other systems through multiple integration options

• Directory integration with enterprise-scale directories, including Microsoft Active Directory

• Agent software can be deployed easily through standard software distribution mechanisms such as Microsoft® SMS, Novell Zenworks, and Altiris

SYSTEM REQUIREMENTS

Microsoft® Windows®

• XP (32-bit/64-bit)
• XP Embedded
• Windows 7 (32-bit/64-bit)
• Windows Vista (32-bit/64-bit)
• Windows Server 2003 (32-bit/64-bit)
• Windows Server 2008 R2 (64-bit)

Linux

• Red Hat® Enterprise 5, 6 (32-bit/64-bit)¹
• SUSE® Enterprise 10, 11 (32-bit/64-bit)¹

Solaris®

• OS: 8, 9, 10 (64-bit SPARC), 10 (64-bit x86)¹

UNIX

• AIX 5.3, 6.1 on IBM Power Systems²
• HP-UX 11i v3 (11.31)²

VIRTUAL

• VMware®: ESX/ESXi 3.x.x, vSphere 4.0.4, vSphere 4.1/5.0.5, View 4.5/5.0.5
• Citrix®: XenServer³
• Microsoft®: HyperV³

¹ Anti-malware not available
² Only Integrity Monitoring and Log Inspection available on this platform
³ Protection via Deep Security Agent only

Key Certifications and Alliances

• Common Criteria EAL 4+
• PCI Suitability Testing for HIPS (NSS Labs)
• Virtualization by VMware
• Microsoft Application Protection Program
• Microsoft Certified Partnership
• Oracle Partnership
• HP Business Partnership
• Certified Red Hat Ready

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