

VMware vCenter AppSpeed

Ensure Quality of Service for Multitier Applications

AT A GLANCE

VMware vCenter™ AppSpeed, part of the VMware vCenter family of management products, enables VMware vSphere™ 4 administrators to ensure performance levels for virtualized multitier applications. AppSpeed offers powerful capabilities to discover and map all tiers of the infrastructure, identify application performance bottlenecks and enable root cause analysis. AppSpeed can also be used to model how applications would perform in virtualized environments, removing uncertainty about virtualizing business-critical applications.

BENEFITS

- Provides a real-time view of the actual end-user application performance, and monitors against specific service levels.
- Dramatically reduces troubleshooting time and finger pointing.
- Enables non-intrusive monitoring of virtual infrastructure.
- Integrates seamlessly with VMware vCenter Server and VMware vSphere client.
- Reduces barriers to virtualizing business-critical applications, enabling greater CapEx savings.

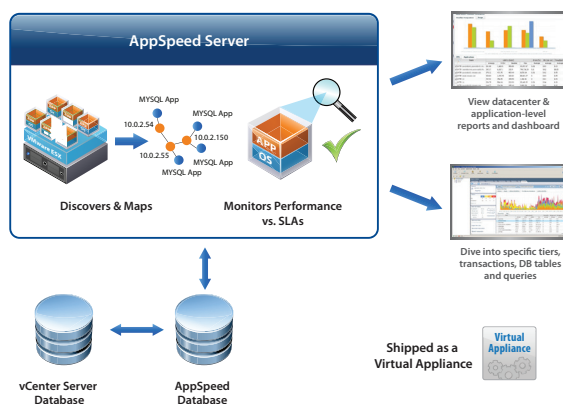
How is VMware vCenter AppSpeed Used in the Enterprise?

VMware vCenter AppSpeed enables VMware vSphere administrators to gain deep insight into the performance of their virtualized multi-tier applications and ensure SLAs. VMware vSphere administrators traditionally lack the ability to determine the performance of applications running in VMware environments. They are often the first to be blamed for performance issues unless they are able to show that the issues are not caused by the virtualization platform. AppSpeed is designed to measure the latency experienced by application end users and correlate it to the different tiers of the underlying physical and virtual infrastructure. This ensures SLAs for quality of service are met, and reduces perceived risks of migrating enterprise applications to a virtual environment.

- **Assured Migration.** AppSpeed can be used to measure performance of an application, both prior to and after migration to a virtualized environment, to demonstrate to application owners that virtualization does not have a negative impact on application performance.
- **SLA Monitoring.** AppSpeed enables auto-mapping of an environment to provide administrators greater visibility into the relationship between virtual machines and applications. Dependency mapping groups virtual machines into logical units and provides an end-to-end view of application performance. Out-of-the-box views and dashboards identify the worst performing applications, applications with declining performance, and applications experiencing high network error rates.

Root Cause Analysis and Performance Optimization.

AppSpeed delivers a comprehensive set of tools for triaging and troubleshooting performance issues. Administrators can view latency from the broadest application level down to the finest level of detail (transaction or database query), while breaking that latency into contributing components (infrastructure, network and application). AppSpeed collects time series data to enable trend identification and help with root cause analysis. It automatically calculates baselines and helps users create performance thresholds.



AppSpeed collects and stores application, latency, and usage data in one location, enabling users to monitor application and transaction performance as well as root cause performance issues.

How Does VMware vCenter AppSpeed Work?

AppSpeed maps application elements and dependencies, and monitors performance based primarily on network traffic.

AppSpeed examines packets traveling between the tiers of a multitier application as they flow through virtual switches on VMware® ESX® hosts. AppSpeed does this non-intrusively, requiring neither agents, nor code insertion, nor creation of synthetic transactions. AppSpeed collects and displays relevant usage information such as transactions, and hits, providing the insight necessary to understand the impact of usage variance and growth on application performance.

AppSpeed provides both real-time and historical performance data to provide insight into trends and alert administrators when performance falls below required service levels.

AppSpeed auto-discovers and maps applications and application elements based on recognized protocols, including:

- Web applications (e.g .Net, J2EE, php etc): HTTP, HTTPS
- Microsoft Exchange (RPC)
- Databases: MySQL, Microsoft SQL server, Oracle

Integrated Architecture

AppSpeed is deployed using two types of virtual appliances. AppSpeed Probes are deployed on each VMware ESX host and communicate to the AppSpeed server. The AppSpeed server collects data from the probes as well as from the VMware vCenter Server and stores, then analyzes and serves data to the AppSpeed user interface (UI). The AppSpeed UI is fully integrated into the VMware vSphere Client.

Flexible Mapping Capabilities Supports Physical, Virtual or Hybrid Environments

AppSpeed probes can be mapped to a SPAN port on a physical switch to measure performance of either purely physical or hybrid environments. AppSpeed can monitor environments with a physical database and all other elements virtualized, without the need to map to a physical switch.

Key Features of VMware vCenter AppSpeed

AppSpeed provides the tools necessary to understand both the topology of the environment and to monitor application performance.

Application Discovery and Mapping

- Auto discovery: Dynamically discover virtual and physical infrastructure elements.
- Application mapping: Maps application and server dependencies, groups workloads into logical applications, and maps application elements to virtual machines.

Performance and SLA Monitoring

- Monitors latency: Non-intrusively monitor real-time end-user latency for multi-tier applications.
- Trend analysis: View historical trend for performance, errors and usage. Enables users to examine usage trends and their effect on performance levels.
- SLA thresholds: Set thresholds based on desired service level targets and historical baselines.
- Performance management: Provides out-of-the-box performance management and usage tracking reports.

Root Cause Analysis

- Troubleshooting: Quickly identify the component responsible for a performance issue, down to the transaction level.
- Correlation: Correlates latency to the different elements of the environment (infrastructure, network and application).

Find Out More

For information or to purchase VMware products, call 1-877-4VMWARE (outside of North America dial +1-650-427-5000), visit www.vmware.com/products, or search online for an authorized reseller. For detailed product specifications and systems requirements, please refer to the VMware vCenter AppSpeed install and configure guide.