What's New in VMware vSphere 5.1?

vSphere 5.1 is VMware's latest release of its industry-leading virtualization platform. This new release contains the following new features and enhancements:

Compute

- **Larger virtual machines** – Virtual machines can grow two times larger than in any previous release to support even the most advanced applications. Virtual machines can now have up to 64 virtual CPUs (vCPUs) and 1TB of virtual RAM (vRAM).

- **New virtual machine format** – New features in the virtual machine format (version 9) in vSphere 5.1 include support for larger virtual machines, CPU performance counters and virtual shared graphics acceleration designed for enhanced performance.

Storage

- **Flexible, space-efficient storage for virtual desktop infrastructure (VDI)** – A new disk format enables the correct balance between space efficiency and I/O throughput for the virtual desktop.

Network

- **vSphere Distributed Switch** – Enhancements such as Network Health Check, Configuration Backup and Restore, Roll Back and Recovery, and Link Aggregation Control Protocol support and deliver more enterprise-class networking functionality and a more robust foundation for cloud computing.

- **Single-root I/O virtualization (SR-IOV) support** – Support for SR-IOV optimizes performance for sophisticated applications.

Availability

- **vSphere vMotion®** – Leverage the advantages of vMotion (zero-downtime migration) without the need for shared storage configurations. This new vMotion capability applies to the entire network.

- **vSphere Data Protection** – Simple and cost effective backup and recovery for virtual machines. vSphere Data Protection is a newly architected solution based EMC Avamar technology that allows admins to back up virtual machine data to disk without the need of agents and with built-in deduplication. This feature replaces the vSphere Data Recovery product available with previous releases of vSphere.

- **vSphere Replication** – vSphere Replication enables efficient array-agnostic replication of virtual machine data over the LAN or WAN. vSphere Replication simplifies management enabling replication at the virtual machine level and enables RPOs as low as 15 minutes.

- **Zero-downtime upgrade for VMware Tools** – After you upgrade to the VMware Tools available with version 5.1, no reboots will be required for subsequent VMware Tools upgrades.

Security

- **VMware vShield Endpoint™** – Delivers a proven endpoint security solution to any workload with an approach that is simplified, efficient, and cloud-aware. vShield Endpoint enables 3rd party endpoint security solutions to eliminate the agent footprint from the virtual machines, offload intelligence to a security virtual appliance, and run scans with minimal impact.

Automation

- **vSphere Storage DRS™ and Profile-Driven Storage** – New integration with VMware vCloud® Director™ enables further storage efficiencies and automation in a private cloud environment.

- **vSphere Auto Deploy™** – Two new methods for deploying new vSphere hosts to an environment make the Auto Deploy process more highly available then ever before.

Management (with vCenter Server)

- **vSphere Web Client** –The vSphere Web Client is now the core administrative interface for vSphere. This new flexible, robust interface simplifies vSphere control through shortcut navigation, custom tagging, enhanced scalability, and the ability to manage from anywhere with Internet Explorer or Firefox-enabled devices.

- **vCenter Single Sign-On** – Dramatically simplify vSphere admin- istration by allowing users to log in once to access all instances or layers of vCenter without the need for further authentication.

- **vCenter Orchestrator** – Orchestrator simplifies installation and configuration of the powerful workflow engine in vCenter Server. Newly designed workflows enhance ease of use, and can also be launched directly from the new vSphere Web Client.

Learn More

For information on upgrading to vSphere 5.1, visit the vSphere Upgrade Center at http://www.vmware.com/products/vsphere/upgrade-center/overview.html.

vSphere is also available with the new vCloud suites from VMware. For more information, visit http://www.vmware.com/go/vcloud-suite/.