

# At a Glance: The VMware Advantage Over Hyper-V 3

*Comparing vSphere 5.1 to Microsoft Hyper-V 3 for Server Virtualization*



vmware®

# vSphere 5.1 – The Most Trusted Virtualization Platform

		vmware® vSphere 5.1	Microsoft® Hyper-V 3
<b>Hypervisor Architecture</b>	Scalability	✓ Host – 160 CPUs, 2TB RAM VM – 64 vCPUs, 1TB vRAM	✓ Host – 320 CPUs, 4TB RAM VM – 64 vCPUs, 1TB vRAM
	Purpose-Built Hypervisor	✓ No reliance on general purpose OS	✗ Hyper-V requires Windows Server OS
	Simplified Patching	✓ No unrelated patching; Automated, image-based with rollback capabilities	✗ Subject to unrelated Windows patching (i.e., Patch Tuesday)
	Advanced Memory Management	✓ Ballooning Transparent page sharing Memory Compression Swap to disk/SSD	✗ Dynamic Memory: No Linux support, disables NUMA
<b>Virtualization Security</b>	Small Attack Surface Area	✓ 144MB disk footprint	✗ Server Core: 5GB Full Install: 8GB
	Centralized Security Management	✓ Unified policy-based approach, managed via vCenter	✗ Lacks single interface, Requires mix of System Center tools (VMM, EP)
	Agentless VM Protection	✓ Built-in vShield Endpoint offloads AV & anti-malware to secure appliance	✗ No introspection; Relies on agents in every VM, legacy physical security
	Software-Defined Security	✓ vCloud Networking & Security* Built-in edge and vNIC-level firewall, NAT, SSL VPN	✗ Nothing comparable; Requires 3 <sup>rd</sup> party solns

\*vCloud Networking & Security (vCNS) can be purchased separately or as a part of the vCloud Suites

# ...to Run Business Critical Apps...

		vmware® vSphere 5.1	Microsoft® Hyper-V 3
<b>Business Continuity</b>	Zero Downtime for Most Critical Apps	✓ Fault Tolerance	✗ Nothing comparable
	Agentless Backups	✓ Data Protection: Built-in de-dupe for both Win & Linux	✗ System Center DPM req's agents, 3 <sup>rd</sup> party dedupe; No Linux VMs
	Live Resource Expansion	✓ Hot-add vCPU, vRAM Hot-plug/extend virtual disk	✗ No hot-add vCPU No hot-extend virtual disk
	Host-Based Replication	✓ vSphere Replication	~ Hyper-V Replica: Single VM management only, inflexible RPO
	Robust High Availability	✓ High Availability: Single-click, heartbeat thru network and storage	~ Failover Clustering: Based on legacy network-dependent heartbeats
<b>Broad Support &amp; Choice</b>	Guest Operating Systems	✓ 96 guest OSs incl. more Windows than Hyper-V	✗ 20 guest OSs
	Compatible Service Providers	✓ 7,200+ VMware Service Providers	✗ Less than 200 worldwide
	ISV Support Statements	✓ 3,600+ applications explicitly supported by 2,000+ software providers	✗ MS certifies on Windows, but not specifically Hyper-V

# ...at the Lowest Total Cost of Ownership

		vmware® vSphere 5.1	Microsoft® Hyper-V 3
<b>Intelligent Automation</b>	Automated Host Provisioning	✓ Auto Deploy: Initial deployment and ongoing host config management	✗ Bare-metal provisioning: Initial deployment only
	Automated Server Workload Balancing	✓ Distributed Resource Scheduler & Distributed Power Management	~ Dynamic Optimization does not adhere to affinity and anti-affinity rules
	Virtual Distributed Switch	✓ Native Distributed Switch Proven 3 <sup>rd</sup> party switches	✗ Relies on 3 <sup>rd</sup> party switch (announced, but not yet available)
	Automated Virtual Networks Across Non-Contiguous Clusters	✓ VXLAN*: Backed by Cisco, Better load balancing	~ NVGRE: Requires new hardware, no per-flow load balancing
<b>Integrated Storage Management</b>	Automated Storage Workload Balancing	✓ Storage DRS: Integrated with vCD for private cloud storage automation	✗ Nothing comparable
	Intelligent Storage Selection	✓ Profile-Driven Storage: Integrated with vCD for private cloud storage automation	✗ Nothing comparable
	Cluster-Wide Prioritization of Storage I/O	✓ Storage I/O Control	✗ Nothing comparable
	Storage APIs	✓ Standards-based array offload capability reqs no add'l infrastructure or config	~ Reqs proprietary API support and add'l infrastructure dependencies

\*VXLAN is part of vCNS which can be purchased separately or as a part of the vCloud Suites