

The differences among leading hypervisor architectures are most apparent when you compare disk footprints (see Figure 2). A smaller disk footprint is essential because every line of code potentially introduces a vulnerability. The smaller VMware hypervisor disk footprint reduces the attack surface for external threats. And it can drastically lower the number of patches and maintenance tasks required, providing a more reliable product and a more stable data center.

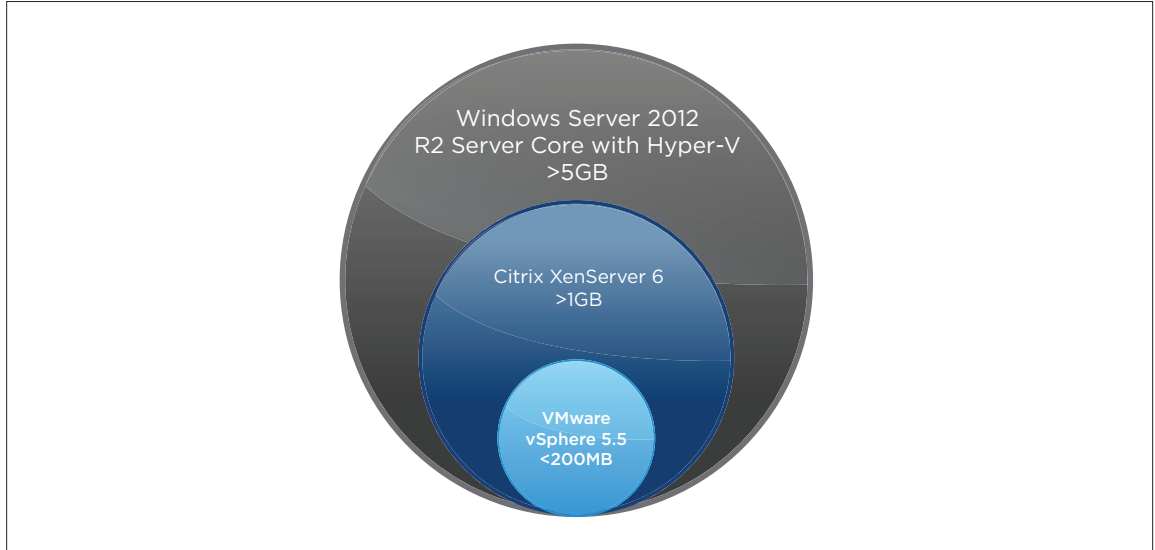


Figure 2: Relative Hypervisor Disk Footprints

Now in its fifth generation, vSphere includes a thin, purpose-built hypervisor designed for the sole purpose of virtualization. Table 1 compares the hypervisor and security features in vSphere to those in Windows Server 2012 with Hyper-V.

“We did a VMware versus Hyper-V assessment and found the maturity of VMware meant it was a superior product. You need to be 100 percent sure you can provide a service to the guys competing. You cannot delay the race for five minutes while you reboot a server or a storage device.”

— Michael Taylor, Director of IT, Lotus F1 Team

TABLE 1. COMPARISON OF KEY HYPERVISOR AND SECURITY FEATURES BETWEEN VIRTUALIZATION PLATFORMS

HYPERSVISOR ATTRIBUTES	VMWARE VSPHERE 5.5	WINDOWS SERVER 2012 WITH HYPER-V R2
Disk footprint	<200MB	>5GB with Server Core installation >10GB with full Windows Server installation
OS independence	No reliance on general-purpose OS; stateless provisioning	Relies on Windows 2012 in parent partition, which has a much larger attack surface and can become a single point of failure
Drivers	Optimized with hardware vendors	Generic Windows drivers
Memory management	Ability to reclaim unused memory, deduplicate memory pages, compress memory pages, swap to disk/SSD	Only uses ballooning; dynamic memory requires specific guest OSs with limited Linux support; can do hot-add of virtual machine RAM only in specific circumstances