

# What's New in VMware vSphere 6.0?

VMware vSphere® 6.0, the industry-leading virtualization platform, empowers users to virtualize any application with confidence, redefines availability, and simplifies the virtual data center. The result is a highly available, resilient, on-demand infrastructure that is the ideal foundation for any cloud environment. This blockbuster release contains the following new features and enhancements, many of which are industry-first features\*:

## Compute

- **Increased Scalability** – Increased configuration maximums: Virtual machines will support up to 128 virtual CPUs (vCPUs) and 4TB virtual RAM (vRAM). Hosts will support up to 480 CPU and 12TB of RAM, 1,024 virtual machines per host, and 64 nodes per cluster.
- **Expanded Support** – Expanded support for the latest x86 chip sets, devices, drivers, and guest operating systems. For a complete list of guest operating systems supported, see the [VMware Compatibility Guide](#).
- **Amazing Graphics** – NVIDIA GRID™ vGPU™ delivers the full benefits of NVIDIA hardware-accelerated graphics to virtualized solutions.
- **Instant Clone\*** – Technology, built in vSphere 6.0, that lays that foundation to rapidly clone and deploy virtual machines, as much as 10x faster than what is currently possible today.

## Storage

- **Transform Storage for your Virtual Machines** – vSphere Virtual Volumes\* enables your external storage arrays to become VM-aware. Storage Policy-Based Management (SPBM) allows common management across storage tiers and dynamic storage class of service automation. Together they enable exact combinations of data services (such as clones and snapshots) to be instantiated more efficiently on a per VM basis.

## Network

- **Network IO Control** – New support for per-VM Distributed vSwitch bandwidth reservations to guarantee isolation and enforce limits on bandwidth.
- **Multicast Snooping** – Supports IGMP snooping for IPv4 packet and MLD snooping for IPv6 packets in VDS. Improves performance and scale with multicast traffic.
- **Multiple TCP/IP Stack for vMotion** – Allows vMotion traffic a dedicated networking stack. Simplifies IP address management with a dedicated default gateway for vMotion traffic.

## Availability

- **vMotion Enhancements** – Perform non-disruptive live migration of workloads across virtual switches and vCenter Servers and over distances of up to 100ms RTT. The astonishing 10x increase in RTT offered in long-distance vMotion now makes it possible for data centers physically located in New York and London to migrate live workloads between one another.
- **Replication-Assisted vMotion\*** – Enables customers, with active-active replication set up between two sites, to perform a more efficient vMotion resulting in huge time and resource savings – as much as 95 percent more efficient depending on the size of the data.
- **Fault Tolerance (up to 4-vCPUs)** – Expanded support for software-based fault tolerance for workloads with up to 4 virtual CPUs.

## Management

- **Content Library** – Centralized repository that provides simple and effective management for content including virtual machine templates, ISO images and scripts. With vSphere Content Library, it is now possible to store and manage content from a central location and share through a publish/subscribe model.
- **Cross-vCenter Clone and Migration\*** – Copy and move virtual machines between hosts on different vCenter Servers in a single action.
- **Enhanced User Interface** – Web Client is more responsive, more intuitive, and more streamlined than ever before.

## Learn More

For information on upgrading to vSphere 6.0, visit the vSphere Upgrade Center at <http://www.vmware.com/products/vsphere/upgrade-center/overview.html>.

vSphere is available standalone or as a part of vSphere with Operations Management or vCloud Suite. For more information, visit <http://www.vmware.com/products/vsphere-operations-management/> or <http://www.vmware.com/products/vcloud-suite/>.