

VMware vSphere

The leader in virtualized infrastructure and your first step to application modernization

AT A GLANCE

VMware vSphere® is the industry leading compute virtualization platform.

vSphere 7 has been rearchitected with native Kubernetes for application modernization. Developers can't afford infrastructure that slows them down – businesses rely on developers to rapidly develop and deploy applications to accelerate digital transformation. On the other hand, IT teams are challenged to deliver modern infrastructure that supports modern container-based application development, including the services and tools to build new applications.

Using vSphere 7, customers and partners can now deliver a developer-ready infrastructure, scale without compromise and simplify operations.

VMware delivers a simple Kubernetes implementation so that customers can run existing enterprise applications alongside containerized applications in a unified manner, while maintaining application portability.

[vSphere with Tanzu helps customers modernize the 70M+ workloads running on vSphere and is the fastest way to get started with Kubernetes workloads on developer-ready infrastructure.](#)

Why VMware vSphere®?

vSphere 7 is the biggest release of vSphere in over a decade. With the latest release, VMware vSphere® with VMware Tanzu® enables millions of IT administrators across the globe to get started with Kubernetes workloads within an hour¹.

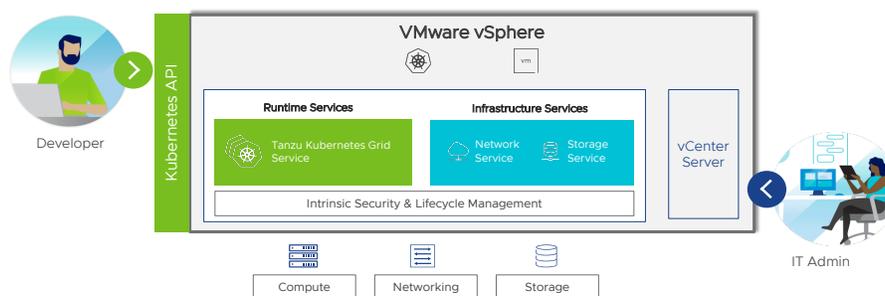


FIGURE 1: VMware vSphere with Tanzu²

vSphere 7 has been rearchitected with native Kubernetes to enable IT Admins to use vCenter Server® to operate Kubernetes clusters through namespaces. VMware vSphere with Tanzu allows IT Admins to operate with their existing skillset and deliver a self-service access to infrastructure for the Dev Ops teams; while providing observability and troubleshooting for Kubernetes workloads.

vSphere 7 provides an enterprise platform for both traditional applications as well as modern applications – so customers and partners can deliver a developer-ready infrastructure, scale without compromise and simplify operations.

Deliver Developer-ready Infrastructure: IT teams can use existing vSphere environments to set up an Enterprise-grade Kubernetes infrastructure at a rapid pace (within one hour), while enabling enterprise-class governance, reliability, and security. After this one-time setup, vSphere with Tanzu enables a simple, fast and self-service provisioning of Tanzu Kubernetes clusters within a few minutes¹. Aligning DevOps teams and IT teams is critical to the success of modern application development; to bring efficiency, scale and security to Kubernetes deployments and operations. vSphere with Tanzu brings agile cloud operations to the IT admin to enable this transition into the role of Cloud Admin or SRE by delivering agility in day to day IT operations related to Kubernetes infrastructure.

Scale Without Compromise: vSphere can scale your infrastructure to meet the demands of high-performance applications and memory intensive databases including SAP HANA and Epic Caché Operational Database to name a few. With vSphere 7, a vSphere cluster can now support 50% more hosts compared to previous releases.

Simplify Operations: Simplified operations are delivered through key capabilities of vSphere 7 including elastic AI/ML infrastructure for sharing resources, simplified lifecycle management and intrinsic security across your hybrid cloud infrastructure.

KEY BENEFITS

- **Deliver Developer-Ready Infrastructure**
 - Drop-in Enterprise grade Kubernetes to existing vSphere infrastructure within an hour¹
 - TKG service enables self-service provisioning of Kubernetes clusters within a few minutes and simplified operations of cloud native workloads
 - Application focused management allows IT admins to implement policy for namespaces, and manage access and quota allocation for developers
- **Scale Without Compromise**
 - Industry leading Monster VMs scale up to 24TB and 768vCPUs
 - Increased cluster scale to support up to 96 hosts per cluster
- **Simplify Operations**
 - vSphere Ideas[®] to capture customer feedback and feature requests
 - vCenter connect[®] to manage on-premises and off-premises (cloud providers) servers using a single interface

LEARN MORE

Learn how others are using vSphere:

Try online for free: [vSphere with Tanzu Hands-on Labs](#).

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For more information or to purchase VMware products, call 877-4-VMWARE (outside North America, +1-650-427-5000), visit [vmware.com/products](#), or search online for an authorized reseller.

For detailed product specifications and system requirements, refer to the vSphere documentation.

Key features and capabilities

- **TKG Service²**: Run the Tanzu Kubernetes Grid Service directly on vSphere to simplify operation of Kubernetes on-premises by putting cloud native constructs at the IT Admin's fingertips. TKG allows IT admins to manage consistent, compliant and conformant Kubernetes, while providing developers self-service access to infrastructure. vSphere with Tanzu enables a simple, fast and self-service provisioning of Tanzu Kubernetes clusters within a few minutes¹.
- **Drop-in to Existing Infrastructure²**: Quickly deploy Kubernetes workloads on existing infrastructure with enterprise-grade governance, reliability and security. Leverage existing networking infrastructure (or BYO networking) using vSphere Distributed Switch's (VDS) centralized interface to configure, monitor and administer switching access for VMs and Kubernetes workloads. Deploy existing block and file storage infrastructure (BYO storage) for containerized workloads. Choose your own L4 load balancing solution using HAProxy (commercial support offered directly by HAProxy) for Tanzu Kubernetes clusters.
- **Application focused management²**: Kubernetes makes vSphere better by providing DevOps teams (Platform Operators and SREs) with self-service access to infrastructure through Kubernetes APIs. vSphere makes Kubernetes better by empowering IT admins to use vCenter Server skills/tools to operate modern applications, alongside VMs, using namespaces as a unit of management. This is referred to as 'application focused management'. Using application focused management, IT admins can use vCenter Server to observe and troubleshoot Tanzu Kubernetes clusters alongside VMs, implement role-based access and allocate capacity to developer teams.
- **Monster VMs**: Deliver industry leading scale through Monster VMs designed for SAP HANA and Epic Cache Operational Database. Improve performance and scale for Monster VMs to support your large scale up environments. Scale up to 24TB memory and support up to 768 vCPUs through Monster VMs, leaving other hypervisor vendors far behind in the category. Speed-up the ESXi scheduler and co-scheduling logic for large VMs using selective latency sensitivity setting for workloads, removal of bottlenecks in vCPU sleep/wakeup paths and a reduced memory overhead.
- **Cluster scale enhancements**: Expand the number of hosts per cluster by 50% to support a total of 96 hosts per cluster, compared to previous releases.
- **vLCM enhancements**: Simplify software upgrades, patching and firmware updates for vSphere, vSAN and NSX-T with a single tool. vLCM will also monitor for desired image compliance continuously and enable simple remediation in the event of any compliance drift.
- **vSphere Ideas[®]**: Submit feature requests right from the vSphere Client UI, track the status of the feature requests and look at all the other feature requests submitted by other users to vote for them, through the Ideas portal.
- **vCenter connect[®]**: Manage on-premises and off-premises (cloud providers) vCenter Servers in a single interface using the any to any vCenter connect capability.

Take the next step and learn more at [vmware.com/products/vsphere](#)

1. Based on internal VMware testing and expectations for a production environment, where appropriate networking settings are preconfigured for consumption.

2. Available only through the Tanzu Basic edition. Pre-requirements for 'vSphere with Tanzu' capabilities are that customers already have the vSphere Enterprise plus edition, and that they have upgraded to vSphere 7 Update 1.