VMware vSphere Foundation

The enterprise workload engine for data center optimization

VMware vSphere Foundation benefits

Boost operational efficiency

- Maximize private cloud capacity utilization.
- Meet SLAs with performance monitoring, predictive analytics, and faster troubleshooting.
- Leverage vSAN/HCI to consolidate resources, automate storage provisioning, and streamline IT operations for faster time- to-value.
- Manage tight IT budgets by increasing ROI from existing resources.

Accelerate innovation

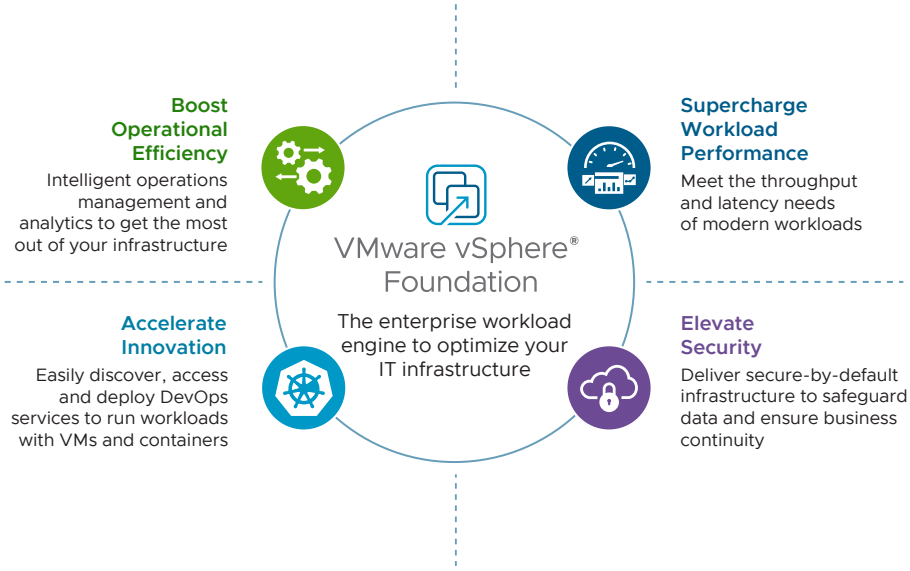
- Modernize existing workloads to meet new customer needs.
- Build and run modern apps using Kubernetes and VMs on a unified platform for simplified management.
- Provide self-service access to infrastructure resources to DevOps and platform teams, resulting in faster time-to-market.
- Leverage vSAN scalability to support evolving application demands with agile, high-performance storage.

Today's organizations need to solve for ever-growing environmental complexity. Infrastructure sprawl, exponential data growth, and operational inconsistency increase costs and stifle innovation. Your modern organization needs a modern solution that transforms current infrastructure and optimizes the overall data center.

VMware vSphere® Foundation (VVF) delivers intelligent operations management to optimize your IT infrastructure. VVF is the enterprise workload engine designed to enhance operational efficiency, supercharge workload performance, elevate security, and accelerate innovation for organizations of all sizes. It delivers predictive and proactive operations management to enable the best performance, availability, and efficiency from your infrastructure and applications. It accelerates innovation with Kubernetes, providing self-service access to vSphere Supervisor for seamless provisioning of VMs, Kubernetes (K8s), and infrastructure services. VVF provides unified visibility and analytics to empower IT teams to monitor, manage, and optimize with ease.

In addition, VVF includes VMware vSAN™ to deliver an enterprise-class Hyperconverged Infrastructure (HCI) solution. With vSAN, IT teams gain agility, scalability, and high performance to support dynamic applications and workloads while simplifying storage management and reducing costs.

With VMware vSphere Foundation (VVF), IT teams can:



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VMware vSphere Foundation benefits (continued)

Supercharge workload performance

- Run AI/ML workloads, leveraging GPUs, to drive business innovation.
- Improve infrastructure health and maximize visibility to keep workloads performing optimally.
- Meet performance needs of modern workloads with optimal workload placement and balancing.

Elevate security

- Leverage modern identity federation and secure multi-factor authentication.
- Enable governance and compliance to industry standards.
- Provide data-at-rest encryption for workloads.
- Deliver secure storage with vSAN encryption, ensuring data protection for HCI.
- Provide a secure-by-default platform for all workload types.

vSphere Foundation components

- VMware vSphere® Enterprise Plus
- VMware vCenter® Standard
- vSphere Kubernetes Service (VKS)
- VMware Cloud Foundation® Operations
- VMware vSAN (include .25 TiB per core)
- Plus, available add-ons

Key features and capabilities

Simplified operations

- **Intelligent operations management and log analytics** – Improve infrastructure performance, availability, and efficiency with comprehensive visibility and analytics all in one place.
- **Enhanced memory monitoring and remediation** – Achieve better workload placement by factoring in memory statistics on bandwidth, latency, and miss rates.
- **Lifecycle management** – Manage infrastructure images to patch, update, or upgrade clusters using a desired state model.
- **Green metrics** – Understand power consumed by workloads, infrastructure services, and idling time, at the host level. Discover ways to optimize power usage.
- **Intelligent alerts** – Expedite troubleshooting with intelligent clustering of alerts across a timeline.
- **Live Patching for VMware ESX™** – Reduce downtime by applying patches to ESX components and VMware tools without reboot or VM evacuation.
- **vSAN Native Snapshots** – Enable rapid backup and recovery with space-efficient, high-speed snapshots.
- **vSAN Storage Based Policy Management (SPBM)** – Streamline storage deployment with automated, policy-driven provisioning.

Built-in security

- **Identity federation with Microsoft Active Directory, Microsoft Entra ID (formerly Azure AD), ADFS, PingFederate and Okta** – Secure access and account management.
- **Virtual machine encryption** – Data-at-rest encryption for virtual machine data and disks.
- **vSphere trust authority** – Remote attestation for sensitive workloads.
- **TPM 2.0 support and virtual TPM** – Supports TPM 2.0 hardware modules and adds virtual TPM devices to shield guest OS from operator or in-guest attacks.
- **Single sign-on with vCenter-hosted VMware idenitity broker** – IT admins can access any VVF component with a single sign-on.*
- **Centralized license and entitlement management** – For better understanding of license usage.*
- **Comprehensive vSAN security** – Including built-in data-at-rest and data-in-transit encryption.

*Feature enabled via VCF Operations.

Learn more

Want to learn more about how VVF combines the enterprise workload engine with powerful analytics to help you get the most out of your infrastructure?

Visit www.vsphere-foundation.com today!

High performance

- **Power larger AI workloads** – Improve the upper performance limit for larger workloads with support for up to 16 GPUs to a single VM and maximum of 32 GPU devices in pass-through mode.
- **Distributed Resource Scheduler™ (DRS)** – Provides load balancing of resources allocated to workloads in a vSphere cluster. Storage DRS optimizes VM data placement as it is created and used over time.
- **GPU workload flexibility** – Share GPU resources more effectively among different workloads with heterogeneous vGPU profiles.

Business continuity

- **High availability** – VMs automatically restart following physical machine failure.
- **Fault tolerance** – Provides continuous availability of any application in the event of a hardware failure with no data loss or downtime.
- **vMotion** – Enables live migration of virtual machines with no disruption to users or loss of service, eliminating the need to schedule application downtime for planned server maintenance. Storage vMotion avoids downtime for planned storage maintenance.
- **VMware vSphere Replication™** – Efficient, array-agnostic replication of VM data over the LAN or WAN, including replication at the VM level.

Application development

- **Independent VKS** – vSphere Kubernetes Service (VKS) allows consumers such as DevOps and Platform Engineering teams to manage consistent, compliant and conformant Kubernetes clusters. This service is now an independent service and allows consumers to easily upgrade to the latest Kubernetes releases independent of vSphere releases.
- **Local Consumption Interface (LCI)** – Provides simplified self-service access to infrastructure via the vSphere Supervisor Services.
- **Supervisor on VMware vSAN stretched clusters** – Deploy Supervisor on vSAN stretched clusters spanning two physical locations or sites.
- **Autoscaling for Kubernetes clusters** – Easily scale down or scale up your Kubernetes clusters/nodes.

Upgrade VMware vSphere Foundation with Flexible Add-Ons

- **VMware vSAN (additional capacity)** – Scale your HCI effortlessly with additional vSAN capacity, providing optimal performance and cost efficiency.
- **VMware Live Recovery™** – Proven solution for ransomware and disaster recovery with 75 percent faster resolution to downtime.
- **VMware Avi™ Load Balancer** – API-first and self-service driven software-defined platform that provides load balancing, application security and application analytics.

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