

# VMware vSphere Foundation

## The enterprise workload engine for data center optimization

### VMware vSphere Foundation at a glance

#### Components of vSphere Foundation

Enterprise workload engine to optimize the IT infrastructure for organizations of all sizes.

- VMware vSphere® Enterprise Plus
- VMware vCenter® Standard
- vSphere Kubernetes Service (VKS)
- VMware Cloud Foundation™ Operations
- Plus, available add-ons

#### Boost operational efficiency

- Maximize private cloud capacity utilization.
- Meet SLAs with performance monitoring, predictive analytics, and faster troubleshooting.
- Manage tight IT budgets by increasing ROI from existing resources.

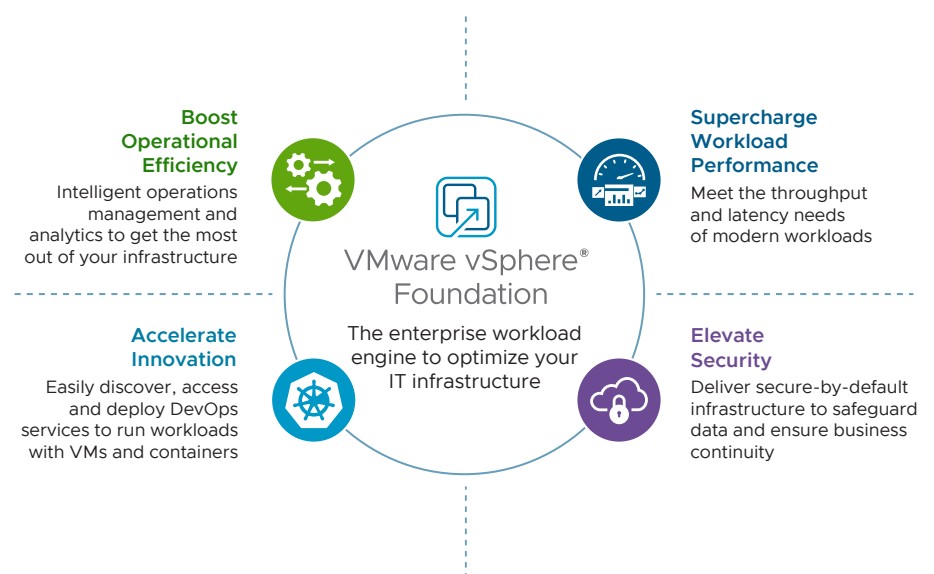
#### Accelerate innovation

- Modernize existing workloads to meet new customer needs.
- Build and run modern apps using containers and VMs on a unified platform for simplified management.
- Provide self-service access to infrastructure resources to DevOps and dev teams for faster time-to-market.

Modern 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 is a new offering designed with intelligent operations for optimizing your IT infrastructure, and is the enterprise workload engine that enhances operational efficiency, supercharges workload performance, elevates security, and accelerates innovation for organizations of all sizes. It delivers predictive and proactive operations management, purpose-built to enable the best performance, availability and efficiency from your infrastructure and applications. With an enterprise-ready IaaS control plane to provision VMs, K8s, and infrastructure services, VMware vSphere Foundation enables advanced troubleshooting, and delivers intelligent operations management, purpose-built to enable the best performance, availability, and efficiency from your infrastructure, while providing unified, holistic visibility and analytics in one place.

Today, more than 300,000 enterprises rely on vSphere to empower transformation. With vSphere Foundation, IT teams can:



## VMware vSphere Foundation at a glance

### 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.
- Provide a secure-by-default platform for all workload types.

## Key features and capabilities

### Simplified operations

- **Intelligent operations management and log analytics** – Delivers 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.
- **Better console experience** for easier management of all vSphere Foundation components.
- **Intelligent alerts** – Intelligent clustering of alerts across a timeline for faster troubleshooting.
- **VMware ESXi™ live patching** – ESXi components, VMware tools, and security patches can be applied without reboot or VM evacuation for reduced downtime.

### 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.
- **vCenter configuration drifts** – Detect vCenter configuration drift easily against several vCenter profile templates.\*
- **Single sign-on** – Single sign-on with vCenter-hosted VMware identity broker. IT admins can sign on to any one component, and do not need to sign on again to any other VVF component.\*
- **Centralized license and entitlement management** – Better understanding of license usage with centralized license and entitlement management.\*
- **Enhanced certificate management** – IT admins can automate updating and/or continuously monitor status and health of certificates to ensure validity.\*

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\*Feature enabled via VCF Operations

## Learn more

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

Visit [www.vsphere-foundation.com](http://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)** – Automatic 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** – Automatically restarts your VMs 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, and enables 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)** – Simplified self-service access to infrastructure using LCI in the vSphere IaaS control plane.
- **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 with autoscaling.

## Upgrade VMware vSphere Foundation with Flexible Add-Ons

- **VMware vSAN** – Enterprise class HCI without compromise – High performance and scalability with robust security and lower cost.
- **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.