VMware vSphere® Foundation

The Enterprise Workload Engine for Data Center Optimization

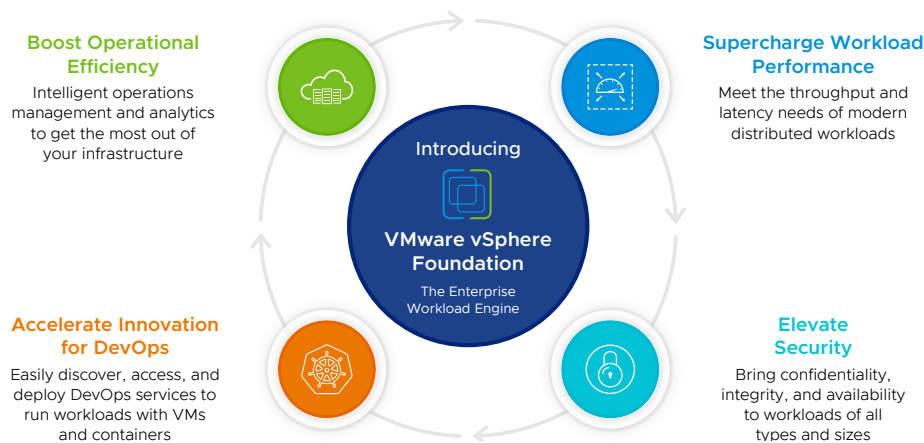## VMware vSphere Foundation At a glance

Boost operational efficiency

• Maximize data center capacity utilization

• Meet SLAs with performance monitoring, predictive analytics, and faster troubleshooting

• Manage tight IT budgets by increasing ROI from existing resources

• Enable governance and compliance to industry standards

Supercharge workload performance

• Accelerate performance of key workloads by offloading system functions from CPUs to DPUs

• Run AI/ML workloads, leveraging GPUs, to drive business innovation

• Improve infrastructure health and maximize visibility to keep workloads performing optimally

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 to optimize your data centers and is the enterprise workload engine that enhances operational efficiency, supercharges workload performance, 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. It can improve performance and prevent disruption across the IT environment, with intelligent operations from apps to storage providing simplified availability and comprehensive visibility in one place. vSphere Foundation delivers an enterprise-ready, self-service Kubernetes runtime and management plane that simplifies operations of Kubernetes clusters so development and operations teams can work together to easily build, run, manage, protect, and secure their traditional and next-gen applications.

Boost Operational Efficiency
Intelligent operations management and analytics to get the most out of your infrastructure

Supercharge Workload Performance
Meet the throughput and latency needs of modern distributed workloads

Introducing

VMware vSphere Foundation
The Enterprise Workload Engine

Accelerate Innovation for DevOps
Easily discover, access, and deploy DevOps services to run workloads with VMs and containers

Elevate Security
Bring confidentiality, integrity, and availability to workloads of all types and sizes

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

• Boost Operational Efficiency

• Supercharge Workload Performance

• Accelerate Innovation for DevOps

• Elevate Security

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VMware vSphere Foundation At a glance

Accelerate innovation for DevOps

• Modernize existing workloads to meet new customer needs

• Build and run modern apps using containers and VMs on a unified system for simplified management

• Provide self-service access to infrastructure resources to DevOps and dev teams for faster time-to-market

• Leverage a central hub for simplified management of Kubernetes clusters

Elevate Security

• Leverage modern identity federation and secure multi-factor authentication

• Provide a secure-by-default environment for all workload types

• Meet regulatory compliance mandates

• Provide data-at-rest encryption for workloads

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.com today!

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.

• **Green Metrics:** Understand power consumed by workloads, infrastructure services, and idling time, at the host level. Discover ways to optimize power usage

High Performance

• **vSphere on DPUs (VMware vSphere® Distributed Services Engine™):** Accelerate infrastructure network functions on the Data Processing Unit (DPU). Reduce operational burden of managing DPUs with integrated vSphere workflows. Use proven vCenter interfaces to get DPU alerts and performance metrics. Utilize available CPU cycles achieve higher workload consolidation per host.

• **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.

• **vSphere Persistent Memory™:** Leverages persistent memory to get DRAM-like performance with flash-like prices.

• **Dynamic DirectPath IO:** Support for vGPU and DirectPath I/O initial VM placement.

Application Development

• **Integration with Tanzu Kubernetes Grid™:** Run the Tanzu Kubernetes Grid (TKG) service directly on vSphere to simplify operation of Kubernetes on-premises. TKG allows IT admins or DevOps engineers to manage conformant Kubernetes, while providing developers self-service access to infrastructure.

Built-in Security

• **Identity federation with Microsoft Entra ID (formerly Azure AD), ADFS 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.

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.

• **vSphere Replication™:** Efficient, array-agnostic replication of VM data over the LAN or WAN, and enables replication at the VM level.

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 Cloud Disaster and Ransomware Recovery:** Proven solution for ransomware and disaster recovery with 75% faster resolution to downtime

• **VMware Advanced Load Balancer**

• **VMware Site Recovery Manager**

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