

VMware vSphere® Product Line Comparison

The enterprise workload engine

Key Attributes

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
Licensing Model	Subscription	Subscription	Subscription
License Metric	Core based (Kit includes 96 core licenses)	Per Core	Per Core
vCenter Edition	Includes vCenter Essentials	Includes vCenter Standard	Includes vCenter Standard
Aria Suite Standard	No	No	Yes
VMware Tanzu® Kubernetes Grid™ Service for vSphere	No	No	Yes
vSAN Enterprise (100 GiB per core)	No	No	Yes, requires 8.0U2B

Admin services and Intelligent Operations Management

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
<p>vCenter Lifecycle Management Service Simplifies the lifecycle management of vCenter instances with a single click. Reduces maintenance window making it easier to schedule updates sooner, allowing more rapid access to new features.</p>		✓	✓
<p>VMware Aria Operations: Continuous Performance Optimization With VMware Aria Operations, assure hybrid cloud performance at minimal cost. Based on operational and business intent, real-time predictive analytics, and AI drive actions to automatically balance workloads and proactively avoid contention.</p>			✓
<p>VMware Aria Operations: Efficient Cost and Capacity Management Reduce cost and improve efficiency with real-time, predictive capacity and cost analytics, delivering optimal consolidation and proactive planning. Using a real time, forward-looking capacity analytics engine VMware Aria Operations can predict future demand, get actionable recommendations, and automate reclamation and rightsizing.</p>			✓
<p>VMware Aria Operations: Intelligent Remediation Use VMware Aria Operations to predict, prevent, and troubleshoot faster with actionable insights correlating metrics, events, logs and configuration data to deliver AI-based anomaly detection across private clouds. Extend monitoring visibility to multiple public clouds as well as physical compute and storage.</p>			✓

Admin services and Intelligent Operations Management (continued)

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
<p>VMware Aria Operations: Integrated Compliance Reduce risk and enforce IT regulatory standards with Aria Operations integrated compliance and automated drift remediation. Ensure your environment’s adherence to common requirements with six out-of-the-box compliance templates—such as for PCI or HIPAA —or create your own custom templates.</p>			✓
<p>VMware Aria Operations for Logs Manage log data at scale with centralized infrastructure log management, deep operational visibility, and intelligent analytics for troubleshooting and auditing across environments. Capabilities include interactive logs analysis, Kubernetes log collection, alerts, active directory integration, role-based access control, scheduled dashboard reports, and event forwarding.</p>			✓
<p>VMware Skyline Health Avoid issues before they occur. Pinpoint potential problems across your VMware environment and use Skyline’s remediation guidance to fix the issues that can cause disruptive and costly IT downtime. Use the Skyline Log Assist feature to upload support log bundle files and diagnostic reports to your VMware support cases.</p>	✓	✓	✓

DevOps services

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
<p>Tanzu Kubernetes Grid™ Service The Tanzu Kubernetes Grid Service allows developers to manage consistent, compliant, and conformant Kubernetes clusters.</p>			✓
<p>Tanzu Integrated Services Streamlines the deployment and management of local and in-cluster platform services—like logging, monitoring, networking, and storage services—to easily configure and maintain a production-ready Kubernetes environment.</p>			✓
<p>Storage Service The Volume Service allows developers to manage persistent disks for use with containers, Kubernetes and virtual machines. Deploy existing block and file storage infrastructure for containerized workloads.</p>			✓
<p>Network Service The Network Service allows developers to manage Virtual Routers, Load Balancers and Firewall Rules. Leverage existing networking infrastructure using vSphere Distributed Switch's (VDS) centralized interface to configure, monitor and administer switching access for VMs and Kubernetes workloads.</p>			✓
<p>Container Registry Service The Registry Service allows developers to store, manage and secure Docker and OCI container images.</p>			✓
<p>VM Registry Service This registry service enables DevOps teams and developers to publish and manage their own VM images within a content library.</p>			✓

DevOps services (continued)

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
<p>Network Load Balancing Network load balancing for Tanzu Kubernetes clusters.</p>			<p>✓ NSX Advanced Load Balancer Essentials included</p>
<p>VM Service The VM service allows developers to create virtual machines independently from Kubernetes without requiring access to vSphere Client.</p>			<p>✓</p>
<p>Workload Availability Zones Enhance Kubernetes workload HA with availability zones. Provides resilience that spans across multiple clusters and potentially larger geographical areas.</p>			<p>✓</p>
<p>Simplified TKG cluster lifecycle management Easily configure TKG clusters at deployment time. Declarative TKG cluster deployment configuration through Kubernetes upstream aligned ClusterClass.</p>			<p>✓</p>
<p>TKG cluster package management Easily manage TKG cluster packages. Configure preferred packages for TKG cluster configuration through Carvel and Tanzu CLI.</p>			<p>✓</p>
<p>Customizable base OS images Customize base OS images for fast, consistent deployments. For example, customize images to include logging or monitoring tools, change OS parameters, adjust user configuration files, add firewall rules, etc.</p>			<p>✓</p>

Simplified operations

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
vSphere Lifecycle Manager Manage infrastructure images to patch, update or upgrade ESXi clusters using a desired state model.	✓	✓	✓
vCenter Server® Profiles Desired state config management capabilities for vCenter Server. It helps the user to define/validate/ apply configuration for multiple vCenter Servers.		✓	✓
vCenter Server Update Planner Manage the compatibility and interoperability for vCenter Server for upgrade scenarios. We will allow users to generate the interoperability & pre-checks report, which will help them plan for upgrades.		✓	✓
Content Library Added administrative control and versioning support. Provides simple and effective centralized management for virtual machine templates, virtual appliances, ISO images and scripts.	✓	✓	✓
vSphere Configuration Profiles Set host configuration at the cluster level, verify that hosts are compliant, and remediate hosts that are not compliant.			✓
Distributed Switch™ Centralizes provisioning, administration, and monitoring by using cluster-level network aggregation.			✓
Host Profiles and Auto Deploy™ Captures host-level configuration settings and saves them as a template to configure other vSphere hosts. Monitors hosts for configuration changes and automatically alerts vSphere administrators if a host falls out of compliance.			✓
Virtual Volumes™ Virtualizes external storage (SAN and NAS) and provides VM-aware, policy-based storage management through vCenter.		✓	✓
Green Metrics Get power consumed by workloads, infrastructure services and idling time, at the host or VM level Discover opportunities to 1) optimize carbon footprint of power-hungry workloads and 2) use idle time to consolidate workloads.	✓	✓	✓

Built-in security

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
Identity Federation Connect to Microsoft Active Directory, Microsoft Active Directory Federation Services (AD FS), Microsoft Entra ID, and Okta for centralized authentication and multifactor authentication.		✓	✓
vSphere Trust Authority Remote attestation for sensitive workloads.			✓
Trusted Platform Module Support Supports TPM 2.0 adding hardware security protections to the hypervisor.	✓	✓	✓
Virtual TPM Adds a virtual TPM 2.0 to virtual machines, enabling in-guest security features.	✓	✓	✓
FIPS 40-2, 140-3, and Common Criteria Certification Third-party validation of cryptographic algorithms, and validation of the security inside the hypervisor.	✓	✓	✓
TLS 1.2 and 1.3 Modern data-in-transit cryptographic protections.	✓	✓	✓
Virtual Machine Encryption Data-at-rest encryption for virtual machine data and disks.			✓
Standard Key Provider Store vTPM, VM Encryption, and vSAN Data-at-Rest Encryption cryptographic keys in an external Key Management System (KMS) using the KMIP protocol.		✓	✓

Built-in security (cont.)

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
Native Key Provider Enable vTPM and other data-at-rest protections natively within vSphere.	✓	✓	✓
Support for Microsoft Virtualization-Based Security (VBS) Enable in-guest protections such as Device Guard and Credential Guard on Microsoft Windows guest operating systems.	✓	✓	✓
Per-VM Enhanced vMotion Compatibility Allows seamless migration across different CPUs across the hybrid cloud by persisting the EVC mode per-VM during migrations across clusters and during power cycles.		✓	✓
Instant Clone Reduces provisioning times, especially beneficial for VDI applications.		✓	✓
VMware vShield Endpoint Secures VMs with offloaded anti-virus and anti-malware solutions, without the need for agents inside the VMs.	✓	✓	✓

Application performance

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
Compatible with NVIDIA AI-Ready Enterprise Platform Deliver AI/ML applications using vSphere and NVIDIA AI Enterprise Suite.			✓
Distributed Resource Scheduler™ (DRS) Redesigned with a more workload centric approach, DRS balances resources allocated to workloads in a vSphere cluster; versus the previously used cluster-wide deviation model; also resulting in an improved cycle time.			✓
Storage DRS™ Automated load balancing now looks at storage characteristics to determine the best place for a given virtual machine's data when it is created and used overtime.			✓
Distributed Power Management™ (DPM) Optimizes power consumption by turning off hosts during periods of reduced demand.			✓
Storage Policy-Based Management Allows common management across storage tiers and dynamic storage class-of-service automation via a policy-driven control plane.		✓	✓
I/O Controls (Network and Storage) Prioritizes storage and Network access by continuously monitoring I/O load of a storage volume and over the network, and dynamically allocating available I/O resources to virtual machines according to business needs.			✓
Single Root I/O Virtualization (SR-IOV) Support Allows one PCI Express (PCIe) adapter to be presented as multiple separate logical devices to virtual machines. Allows users to offload I/O processing and reduce network latency.			✓

Application performance (continued)

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
vSphere Persistent Memory™ Leverages Persistent Memory to get DRAM like performance with flash like prices.			✓
NVIDIA GRID vGPU Enables native 2D and 3D graphics performance for virtual machines. Supports multiple vGPUs per VM.			✓
Proactive HA Receive server health information and migrate virtual machines from degraded hosts before problems occur.			✓
Accelerated Graphics for Virtual Machines			✓
Dynamic DirectPath IO Support for vGPU and DirectPath I/O initial VM placement.		✓	✓
Vendor Device Group Combine multiple PCIe devices into a group that is assigned as a unit to a VM, giving it user-prescribed access to that group.			✓

Business continuity

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
vSphere Hypervisor Provides a robust, production-proven, high-performance virtualization layer.	✓	✓	✓
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. The recent enhancements in vMotion logic provides non-disruptive operations, irrespective of the size of VMs, specifically for large and mission critical workloads.	✓	✓	✓
vCenter® Hybrid Linked Mode Enables unified visibility and management across on-premises vCenter and vCenter on a vSphere enabled cloud such as VMware Cloud on AWS.		✓	✓
vSMP Virtual symmetric multiprocessing (SMP) enables virtual machines to have multiple virtual CPUs.	✓	✓	✓
High Availability (HA) Automatically restarts your VMs following physical machine failure.	✓	✓	✓
Storage vMotion Avoids application downtime for planned storage maintenance by migrating live virtual machine disk files across storage arrays.		✓	✓
Fault Tolerance Provides continuous availability of any application in the event of a hardware failure — with no data loss or downtime for workloads up to 8-vCPU.		2-vCPU	8-vCPU

Business continuity (continued)

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
vSphere Replication™ Enables efficient, array-agnostic replication of virtual machine data over the LAN or WAN, and simplifies management by enabling replication at the virtual machine level.	✓	✓	✓
Support for 4K Native Storage Enhances platform scalability by leveraging high-capacity drives. Reduce CAPEX.	✓	✓	✓
vSphere Quick Boot™ Skips hardware initialization steps and dramatically reduces time required for patching and upgrades.	✓	✓	✓
vCenter High Availability Automatically restarts your VMs following physical machine failure.		✓	✓
vCenter Backup and Restore Native vCenter Server backup and restore.		✓	✓
vCenter Server Appliance™ Migration A tool for single-step migration and upgrade of existing Windows vCenter deployments to vCenter Server Appliance.		✓	✓

Hybrid cloud capabilities

	vSphere® Essentials Plus Kit (Subscription)	vSphere® Standard (Subscription)	vSphere® Foundation (Subscription)
Cross vCenter Mixed Version Provisioning Uses different vCenter versions across on-premises and vSphere based public cloud environments, while allowing provisioning operations such as vMotion, Full Clone and Cold Migrate to continue on seamlessly.		✓	✓
Hot and Cold Migration to the Cloud Supports hot and cold migration of workloads across the hybrid cloud.		✓	✓
Per VM Enhanced vMotion Compatibility Allows seamless migration across different CPUs across the hybrid cloud by persisting the EVC mode per-VM during migrations across clusters and during power cycles.		✓	✓