

# VMware vSphere 6

## Standard, Enterprise, Enterprise Plus

Run applications with confidence and respond faster to your business needs with VMware vSphere.



### At a Glance

VMware vSphere empowers users to virtualize any application with confidence, redefines availability and simplifies the virtual data center. The result is a highly available, resilient, on-demand infrastructure that is the ideal foundation of any cloud environment.

### Key benefits

#### Efficiency through utilization and automation

Achieve consolidation ratios of 15:1 or more and improve hardware utilization from 5–15 percent to as much as 80 percent or more – without sacrificing performance.

#### Maximize uptime across your x86-infrastructure

Reduce unplanned downtime and eliminate planned downtime for server and storage maintenance.

#### Dramatically lower IT costs

Reduce capital expenditures by up to 70 percent and operational expenditures by up to 30 percent to achieve 20–30 percent lower IT infrastructure costs for each application running on vSphere.

#### Agility with control

Respond quickly to changing business needs without sacrificing security or control, and deliver zero-touch infrastructure with built-in availability, scalability and performance guarantees for all business-critical applications running on vSphere.

vSphere Features	STANDARD	ENTERPRISE	ENTERPRISE PLUS
vSphere® Virtual Symmetrical Multiprocessing, vRealize™ Foundation™, vSphere® High Availability (HA), vSphere® Data Protection™, vShield Endpoint™, vSphere® Replication™, Hot Add, vSphere® Storage vMotion®, vSphere® Virtual Volumes™, Storage Policy-Based Management	×	×	×
vSphere® vMotion®	Cross vSwitch	Cross vSwitch	Cross vSwitch, vCenter / Long Distance
vSphere® Fault Tolerance	2-vCPU	2-vCPU	4-vCPU
Reliable Memory		×	×
Virtual Serial Port Concentrator		×	×
vSphere® Storage APIs for Array Integration and Multipathing		×	×
vSphere® Distributed Resource Scheduler™ and Distributed Power Management™ (DPM)		×	×
vSphere® Big Data Extensions™		×	×
vSphere® Flash Read Cache™			×
vSphere® Distributed Switch™			×
I/O Controls (Network and Storage)			×
vSphere® Host Profiles and Auto Deploy™			×
vSphere® Storage DRS™			×
Single Root I/O Virtualization (SR-IOV) support			×

# Topics

## What is VMware vSphere?

VMware vSphere empowers users to virtualize any application with confidence, redefines availability and simplifies the virtual data center. The result is a highly available, resilient, on-demand infrastructure that is the ideal foundation of any cloud environment. This can drive down data center cost, increase system and application uptime, and drastically simplify the way IT runs the data center. vSphere is purpose-built for the next generation of applications and serves as the core foundational building block for the Software-Defined Data Center. vSphere accelerates the shift to cloud computing for existing data centers and also underpins compatible public cloud offerings, forming the foundation a hybrid cloud model. With the support of more than 3,000 applications from more than 2,000 ISV partners, vSphere is the trusted platform for any application.

## How is vSphere used?

**Virtualize Applications with Confidence** – Deliver enhanced scale, performance and availability that enables users to virtualize scale-up and scale-out applications with confidence.

**Simplify Management of the Virtual Data Center** – Manage the creation, sharing, deployment, and migration of virtual machines with powerful yet simple and intuitive tools.

**Data Center Migration and Maintenance** – Perform live workload migrations and data center maintenance with zero application downtime.

**Transform Storage for Virtual Machines** – Enable your external storage arrays to operate in a more VM-centric manner that increases performance and efficiency for your virtual machine operations.

## Enable Choice in How to Build and Operate Cloud

**Environments** – Build and operate cloud environments that fit your needs using vSphere and the VMware stack or open-source frameworks such as OpenStack and the VMware Integrated OpenStack add-on.

## Key features and components

**VMware vSphere Hypervisor Architecture** provides a robust, production-proven, high-performance virtualization layer. It enables multiple virtual machines to share hardware resources with performance that can match (and in some cases exceed) native throughput.

**VMware vSphere Virtual Symmetric Multiprocessing** enables the use of ultra-powerful virtual machines that possess up to 128 virtual CPUs.

**VMware vSphere Virtual Machine File System (VMFS)** allows virtual machines to access shared storage devices (Fibre Channel, iSCSI, etc.) and is a key enabling technology for other vSphere components such as VMware vSphere Storage vMotion®.

**VMware vSphere Storage APIs** provide integration with supported third-party data protection, multipathing and disk array solutions.

**VMware vSphere Thin Provisioning** provides dynamic allocation of shared storage capacity, enabling IT organizations to implement a tiered storage strategy while reducing storage spending by up to 50 percent.

**VMware vSphere vMotion®** enables live migration of virtual machines between servers and across virtual switches with no disruption to users or loss of service, eliminating the need to schedule application downtime for planned server maintenance.

**VMware vSphere Storage vMotion** enables live migration of virtual-machine disks with no disruption to users, eliminating the need to schedule application downtime for planned storage maintenance or storage migrations.

**VMware vSphere High Availability (HA)** provides cost-effective, automated restart within minutes for all applications if a hardware or operating system failure occurs.

**VMware vSphere Fault Tolerance (FT)** provides continuous availability of any application in the event of a hardware failure – with no data loss or downtime. For workloads up to 2-vCPU.

**VMware vSphere Data Protection™** is VMware's backup and replication solution. It delivers storage efficient backups through patented variable-length deduplication, rapid recovery and WAN-optimized replication for DR. Its vSphere-integration and simple user interface makes it an easy and effective backup tool for vSphere. It provides agentless, image-level VM backups to disk and application-aware protection for business-critical applications (e.g., Exchange, SQL Server) along with WAN-efficient, encrypted backup replication across sites.

**VMware vShield Endpoint™** secures virtual machines with offloaded antivirus and antimalware solutions without the need for agents inside the virtual machine.

**VMware vSphere Virtual Volumes** enables abstraction for external storage (SAN and NAS) devices making them virtual machine-aware.

**VMware vSphere Storage Policy-Based Management** allows common management across storage tiers and dynamic storage class of service automation via a policy-driven control plane.

**VMware vSphere Content Library** provides simple and effective centralized management for VM templates, virtual appliances, ISO images, and scripts.

## Additional Components Available with Enterprise Edition

**VMware vSphere Distributed Resource Scheduler™** provides dynamic, hardware-independent load balancing and resource allocation for virtual machines in a cluster, using policy-driven automation to reduce management complexity while meeting SLAs.

**VMware vSphere Distributed Power Management™** automates energy efficiency in vSphere Distributed Resource Scheduler clusters by continuously optimizing server power consumption within each cluster.

**VMware vSphere Reliable Memory** places critical vSphere components (such as the hypervisor) into memory regions identified as "reliable" on supported hardware. This further protects components from an uncorrectable memory error.

**VMware vSphere Big Data Extensions** run Hadoop on vSphere to achieve higher utilization, reliability and agility. vSphere Big Data Extensions support multiple Hadoop distributions and make it seamless for IT to deploy, run and manage Hadoop workloads on one common platform.

### Additional Components Available with Enterprise Plus Edition

**VMware vSphere Distributed Switch** simplifies and enhances virtual-machine networking in vSphere environments and enables those environments to use third-party distributed virtual switches.

**VMware vSphere Storage I/O Control and VMware vSphere Network I/O Control** set storage and network quality-of-service priorities for guaranteed access to resources.

**VMware vSphere Auto Deploy™** performs quick, as-needed deployment of additional vSphere hosts. When vSphere Auto Deploy is running, it pushes out update images, eliminating patching and the need to schedule patch windows.

**VMware vSphere Host Profiles** help IT administrators simplify host deployment and compliance.

**VMware vSphere Storage DRS™** automates load balancing by using storage characteristics to determine the best place for a virtual machine's data to reside, both when it is created and when it is used over time.

**VMware vSphere Flash Read Cache** virtualizes server-side flash providing a high performance read cache layer that dramatically lowers application latency.

**VMware vSphere 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 4-vCPU.

**VMware vSphere vMotion** enables live migration of virtual machines between servers, across vCenter Servers, and over long distances (up to 100 milliseconds round trip time) with no disruption to users or loss of service, eliminating the need to schedule application downtime for planned server maintenance.

**NVIDIA GRID™ vGPU™** delivers the full benefits of NVIDIA hardware-accelerated graphics to virtualized solutions.

### Recommended Add-on

**VMware vCenter Server**—vCenter Server provides unified management for the entire virtual infrastructure and enables many key vSphere capabilities such as live migration. vCenter Server can manage thousands of virtual machines across multiple locations and streamlines administration with features such as rapid provisioning and automated policy enforcement.

**Note:** vCenter Server is a required element of a complete vSphere implementation and is licensed separately on a per-instance basis.

### PRIMERGY

Following PRIMERGY Servers are released for VMware software: VMware Systems Compatibility HCL: <http://vmware.com/go/hcl>

### Fujitsu Manageability with ServerView Suite

ServerView is able to manage PRIMERGY servers by means of the CIM provider that Fujitsu has integrated for VMware vSphere

- Management of the physical machine under the host operating system ESXi
- ServerView RAID for configuration and management of the RAID controllers in the physical machine
- Management of the virtual machines under the guest operating systems Windows and Linux

- Remote access via onboard Integrated Remote Management Controller (IRMC), Remote Management Controller (RMC), Baseboard Management Controller (BMC), or Remote Service Board (RSB)
- Even enables access to the hardware for diagnostic purposes in the event of a failure.

### Support

#### Mandatory Support and Subscription (SNS)

SNS (Support and Subscription) is mandatory for at least 1 year for all VMware software products. Fujitsu offers its own support for VMware OEM software products. This support is available for different retention periods and different support levels. The Fujitsu support levels are: Platinum Support (7x24h) or Gold Support (5x9h). Both service levels can be ordered either for 1, 3 or 5 year support terms. Please choose the appropriate Support for your project.

Your support agreement is with Fujitsu and VMware exclusively through Fujitsu (not with VMware directly). SNS is only for Fujitsu servers like PRIMERGY and PRIMEQUEST. Of course, SNS for VMware (OEM) software products can be renewed at Fujitsu prior to the end of the SNS term. SNS for VMware (OEM) software products cannot be renewed at VMware directly.

#### Support Terms and Conditions

Fujitsu Terms and Conditions can be found under:

[FUJITSU ServiceContract Software](#)  
[FUJITSU Support Pack Software](#)  
[Technical Appendix VMware Software](#)

#### Fujitsu Professional Service

Installation, configuration or optimization services for VMware software are optional service offerings. Additionally operations services from Fujitsu are available. Any additional and optional service can be requested from Fujitsu Professional Services.

#### Product Activation Code Registration

Please register your activation code at

<http://www.vmware.com/code/fsc>.

Registration will generate the license key. Help can be found at:

<http://www.vmware.com/support/licensing.html>.

If you have any problems, you can send an email to [vi-hotline@vmware.com](mailto:vi-hotline@vmware.com).

#### Warranty

Class: C

#### Conditions

This software product is supplied to the customer under the VMware conditions as set forth in the EULA of the VMware software at <http://www.vmware.com/download/eula/>.

# More information

## Fujitsu platform solutions

In addition to VMware software, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

### Fujitsu Portfolio

Built on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offerings. This allows customers to select from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

### Computing Products

[www.fujitsu.com/global/products/computing/](http://www.fujitsu.com/global/products/computing/)

### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

## More information

To learn more about VMware vSphere please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website. [www.fujitsu.com/fts](http://www.fujitsu.com/fts)

## Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.

Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.

Please find further information at <http://www.fujitsu.com/global/about/environment>



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