

WHITE PAPER

VMware Infrastructure 3 Pricing, Packaging and Licensing Overview



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Introduction to VMware® Infrastructure 3

VMware® Infrastructure 3 is the most widely deployed software suite for optimizing and managing IT environments through virtualization – from the desktop to the data center. VMware® Infrastructure 3 suites include:

- VMware® ESXi
- VMware® VMFS and VMware® Virtual SMP®
- VMware® VirtualCenter Agent which allows central management using VMware® VirtualCenter Server 2.5
- VMware® Update Manager, VMware® VMotion, Storage VMotion, VMware® High Availability (HA), VMware® Distributed Resource Schedule (DRS) with VMware® Distributed Power Management (DPM), and VMware® Consolidated Backup

This whitepaper outlines the various VMware® Infrastructure 3 bundles and the latest changes to pricing, licensing, upgrade paths and Support and Subscription (SnS) entitlements.

Pricing, Packaging & Licensing Overview

VMware Infrastructure 3 pricing, packaging and licensing simplify the purchasing, deployment and ongoing support for customers.

- **Capacity pricing per two processors.** VMware Infrastructure 3 is licensed based on the number of processors on the physical host and is sold in increments of two processors. Customers can purchase and deploy or re-deploy any mix of servers, as required. Each processor may contain multiple cores. VMware allows customers to deploy VMware Infrastructure 3 on physical processors with up to six cores at no additional charge. Additional information may be found at <http://www.vmware.com/download/eula/multicore.html>
- **VMware® Infrastructure 3 editions.** To make the customer's decision-making and purchasing process easier, VMware Infrastructure 3 is available in four packaged offerings targeted for various IT infrastructure environments: VMware ESXi, VMware Infrastructure 3 Foundation, VMware Infrastructure 3 Standard and VMware Infrastructure 3 Enterprise.
- **Centralized licensing mechanism.** VMware Infrastructure 3 uses an embedded licensing server to provide central management for all VMware Infrastructure 3 product licenses. Customers can also manage licenses on a per-host basis.

What is New in VMware® Infrastructure 3

The latest changes to VMware® Infrastructure 3 include:

- **VMware® ESXi** - The VMware next-generation thin hypervisor, delivered as embedded firmware in server systems from major OEM vendors or as an installable product, will let customers easily and quickly deploy virtualization technology in a variety of environments.

- **VMware® Update Manager** – VMware Update Manager automates patches and update management for VMware ESX Server hosts and virtual machines. It is designed to relieve the significant pain point of tracking patch levels and manually applying security and bug fixes.
- **VMware® Storage VMotion** – VMware VMotion allows live migration of virtual machine disks from one data store to another with no disruption or downtime.
- **VMware® Distributed Power Management** – VMware distributes power management to reduce power consumption in the datacenter through intelligent workload balancing.

VMware® Infrastructure 3 Editions

VMware® ESXi VMware® ESXi standalone license can be purchased either embedded in hardware or as a hard-drive installable version. VMware ESXi includes VMFS and Virtual SMP. As a Virtual Center agent is required to manage any VMware ESXi host, managing VMware ESXi hosts with VirtualCenter Server requires a purchase of VMware Infrastructure 3 Foundation, Standard or Enterprise. VMware ESXi is available at no cost and can be downloaded from <http://www.vmware.com/products/esxi/>

VMware® Infrastructure 3 Foundation

(previously called "Starter") is ideal for small businesses, departments or branch offices. For example, an insurance company with a large network of agent offices may use VMware Infrastructure 3 Foundation to standardize the few servers in each office on the same virtualization platform as the corporate data center. Unlike the previous VMware Infrastructure 3 Starter, VMware Infrastructure 3 Foundation will have no restrictions on shared storage connectivity, memory utilization or number of CPUs of the physical server.

VMware® Infrastructure 3 Foundation includes:

- VMware ESXi and VMware® ESX
- VMFS (Virtual Machine File System)
- Virtual SMP
- VMware VirtualCenter Agent License
- VCB (Consolidated Backup)
- VMware Update Manager

VMware® Infrastructure 3 Foundation is available for USD\$995 per two processors.

VMware® Infrastructure 3 Standard

is designed to bring higher levels of resiliency to IT environments at a greater value. In addition to the capabilities of VMware Infrastructure 3 Foundation, VMware Infrastructure 3 Standard will include VMware HA, which automates the restart of virtual machines affected by hardware failure and allows for cost-effective application availability, independent of hardware and operating systems. VMware Infrastructure 3 Standard includes:

- VMware ESXi and VMware ESX
- VMFS (Virtual Machine File System)
- Virtual SMP
- VMware VirtualCenter Agent License
- VCB (Consolidated Backup)
- VMware Update Manager
- VMware HA (High Availability)

VMware Infrastructure 3 Standard is available for USD\$2,995 per two processors.

VMware® Infrastructure 3 Enterprise contains the entire array of virtual infrastructure capabilities for resource management, workload mobility and high availability. In addition to the capabilities in VMware Infrastructure 3 Standard, it also includes VMware VMotion, VMware Storage VMotion, and VMware DRS with Distributed Power Management (DPM):

- VMware ESXi and VMware ESX
- VMFS (Virtual Machine File System)
- Virtual SMP
- VMware VirtualCenter Agent License
- VCB (Consolidated Backup)
- VMware Update Manager
- HA (High Availability)
- VMotion and Storage VMotion
- DRS (Distributed Resource Scheduling) with DPM (Distributed Power Management)

VMware Infrastructure 3 Enterprise is available for USD\$5,750 per two processors.

Figure 1 VMware® Infrastructure 3 Editions and Pricing

	\$0	\$995	\$2,995	\$5,750
Resource Management Power Management				DRS DPM
Live VM Migration Live VM Disk File Migration				VMotion™ Storage VMotion
Availability		High Availability	High Availability	High Availability
Backup		Consolidated Backup	Consolidated Backup	Consolidated Backup
Patch Management		Update Manager	Update Manager	Update Manager
Central Management		VC Agent	VC Agent	VC Agent
Storage Virtualization	VMFS Virtual SMP™	VMFS Virtual SMP™	VMFS Virtual SMP™	VMFS Virtual SMP™
Enterprise VMs	VMware ESXi	VMware ESX 3i or VMware ESX	VMware ESXi or VMware ESX	VMware ESXi or VMware ESX
Next Generation Hypervisor	VMware ESXi	VI Foundation	VI Standard	VI Enterprise
License	\$0	\$995	\$2,995	\$5,750
SnS (Gold/Plat)	\$495/\$595	\$545/\$645	\$629/\$749	\$1,208/\$1,438

Management Servers

VMware® VirtualCenter Server (previously known as VMware Virtual Center Management Server) is the central management piece for configuring, provisioning and managing distributed virtual IT environments. Licensed separately, it is required for managing a distributed virtual infrastructure. Typically, environments comprising of ESX Server hosts that form one logical datacenter require only one instance of VirtualCenter Management Server.

VMware® VirtualCenter Foundation is functionally equivalent to VMware VirtualCenter, except that it is limited to managing three nodes of any size. For example, managed instances can be VMware® Infrastructure 3 Foundation, Standard or Enterprise and can be on two, four, eight or 16 CPU servers.

At least one instance of VMware® VirtualCenter Server or VMware® VirtualCenter Foundation Server is required for VMware® Infrastructure 3 Foundation, VMware® Infrastructure 3 Standard or VMware® Infrastructure 3 Enterprise. The VMware VirtualCenter Agent is included in all VMware® Infrastructure 3 editions, but not in VMware® ESXi.

Figure 2 VMware® Infrastructure 3 Management Server Pricing

VI Management	License	SnS (Gold/Plat)
VirtualCenter	\$4,995	\$1,049/1,249
VirtualCenter Foundation	\$1,495	\$545/645

Per Instance (USD)

A-la-Carte Products

Several products are available for purchase as separate a-la-carte offerings.

Figure 3 A-la-Carte Pricing: VMware® Infrastructure 3 Add-ons

VI Add-ons	License	SnS (Gold/Plat)
DRS	\$1,995	\$419/499
VMotion™ Storage VMotion	\$3,495	\$734/874
HA	\$2,495	\$524/624

Per 2 Processors (USD)

Note: VMware DRS, VMware VMotion/Storage VMotion and VMware HA can be purchased a la carte for VMware Infrastructure 3 Foundation or Standard but not for a VMware ESXi standalone license as a VirtualCenter Agent is required. VMware VMotion and Storage VMotion must be purchased together. VMware DPM is included in VMware DRS, and VMware VMotion is required for VMware DRS.

Upgrades to VMware® Infrastructure 3 Editions

VMware Infrastructure 3 customers with an active SnS contract may purchase an upgrade to a higher VMware Infrastructure 3 edition. For example, VMware Infrastructure 3 Foundation customers can upgrade to either Standard or Enterprise. Upgrade prices are listed below under "License." Customers on active SnS contracts receive a discount on the purchase of an upgrade. For example, VMware Infrastructure 3 customers only pay \$3,500 for VMware Infrastructure 3 Enterprise when upgrading from VI3 Standard, instead of the full price of \$5,750. SnS pricing on the upgrade reflects the difference in list prices between the two editions (i.e., no premium).

When customers upgrade supported licenses to a higher VMware Infrastructure 3 edition, the SnS fees charged for the upgrade cover only the incremental features/licenses included in the upgrade. Customers who upgrade must renew their SnS on the base license. The base license SnS fees will be pro-rated at the first renewal after the upgrade in order to co-terminate the active service period with the upgrade. Subsequent renewals are based on the current support and subscription fees for the upgraded edition.

Customers who have an expired SnS must pay reinstatement fees to receive supported upgrades. Alternatively, they can purchase an upgraded edition at upgrade pricing. Reinstatement fees are based on the following:

- The applicable fees for the current contract term
- The fees that would have been paid for the period of time that the customer was not enrolled
- A 20% reinstatement fee on the sum of the fees listed above.

In cases where support and subscription has expired for an extended period, purchasing a new license may be less costly than reinstating the expired services.

If a customer purchases VMware ESXi without SnS and decides to upgrade to Foundation, Standard or Enterprise editions later, he or she will need to buy full support and subscription on the upgraded to edition (see Figure 4).

Figure 4. Upgrade Paths among VMware® Infrastructure 3 Editions

From	To	License	SnS (Gold/Plat) [†]
VMware ESXi	VI Foundation	\$995	\$50/50
	VI Standard	\$2,995	\$134/154
	VI Enterprise	\$5,750	\$713/843
VI Foundation	VI Standard	\$2,495	\$84/104
	VI Enterprise	\$5,550	\$663/793
VI Standard	VI Enterprise	\$3,500	\$579/689
VirtualCenter Foundation	VirtualCenter	\$3,845	\$504/604

[†]Per 2 Processors (USD)

VMware® Infrastructure 3 Acceleration Kits

The new VMware® Infrastructure 3 bundles are available in four Acceleration Kits designed to help customers adopt VMware® Infrastructure 3:

- VMware® VI3 Foundation Acceleration Kit
- VMware® VI3 Standard HA Acceleration Kit
- VMware® VI3 Midsize Acceleration Kit
- VMware® VI3 Enterprise Acceleration Kit

**SnS renewals are based on the Acceleration Kit SnS prices, which is consistent with the SnS pricing for the initial year.

VMware Infrastructure 3 Foundation Acceleration Kit

includes three licenses of VMware Infrastructure 3 Foundation. These include VMware ESXi, VMware Consolidated Backup, VMware Update Manager, VMware Virtual SMP, VMware VirtualCenter Agent and VMware VMFS. They also include VMware VirtualCenter Foundation Server, which provides VMware Guided Consolidation and the ability to manage up to three VMware Infrastructure 3 server hosts. The list price for this kit is USD\$2,995.

VMware® Infrastructure 3 Standard High Availability Acceleration Kit

includes two, 2-processor nodes of VMware Infrastructure 3 Standard. This contains the features provided in the VMware Infrastructure 3 Foundation Acceleration Kit, plus VMware HA. The list price for this kit is USD\$5,995.

VMware® Infrastructure 3 Midsize Acceleration

includes three, 2-processor nodes of VMware Infrastructure 3 Enterprise. This provides the features in the VMware Infrastructure 3 Standard High Availability Acceleration Kit, plus VMware VMotion, VMware DRS VMware Storage VMotion and VMware DPM. The latter is an experimental feature. This kit also includes flexible training and consulting credits that can be applied to classes on how to deploy and use VMware Infrastructure 3, such as the “VMware Infrastructure 3: Install and Configuration” course. The list price for this kit is USD\$19,595.

VMware® Infrastructure 3 Enterprise Acceleration Kit

includes four, 2-processor nodes of VMware Infrastructure 3 Enterprise, plus one VMware VirtualCenter Server. The list price for this kit is USD\$25,195.

Table 1: VMware Infrastructure 3 Acceleration Kits

	VI3 Foundation Acceleration Kit	VI3 Standard HA Acceleration Kit	VI3 Midsize Acceleration Kit	VI3 Enterprise Acceleration Kit (existing)
Components	VMware VirtualCenter Foundation + VMware Infrastructure 3 Foundation for 6 processors	VMware VirtualCenter Foundation + VMware Infrastructure 3 Standard for 4 processors	VMware VirtualCenter Foundation + VMware Infrastructure 3 Enterprise for 6 processors + 30 PSO credits	VMware VirtualCenter Server, VMware Infrastructure 3 Enterprise for 8 processors
List Price (USD)	\$2,995	\$5,995	\$19,595	\$25,195
SnS	Mandatory; purchased separately \$629 / \$749 (Gold/Plat)	Mandatory; purchased separately \$1,259 / \$1,499 (Gold/Plat)	Mandatory; purchased separately \$3,623 / \$4,313 (Gold/Plat)	Mandatory; purchased separately \$5,291 / \$6,299 (Gold/Plat)

VMware® Infrastructure 3 SnS Entitlements

Existing VMware Infrastructure 3 customers who have active SnS or SLS contracts will receive new VMware Infrastructure 3 functionalities at no extra charge, as outlined here:

Table 2: VMware Infrastructure 3 SnS Entitlements

Before November 20th, 2007)	After November 20th, 2007)	Changes
VI3 Starter	VI3 Foundation	Add VMware ESXi (Remove CPU Limits, Remove Memory Limits, remove storage connectivity limits) Add VMware ESXi option Add VMware VCB Add VMware Update Manager
VI3 Standard	VI3 Standard	Add VMware ESXi option Add VMware VCB Add VMware Update Manager Add VMware HA
VI3 Enterprise	VI3 Enterprise	Add VMware ESXi option Add VMware Update Manager Add VMware Storage VMotion
VMware VMotion	VMware VMotion + VMware Storage VMotion	Add VMware Storage VMotion
VMware DRS	VMware DRS + VMware DPM	None (VMware DRS and VMware DPM will be a single license)
VMware HA	VMware HA	None
VMware VCB	VMware VCB	None

VMware® Infrastructure 3 Licensing Technology

VMware Infrastructure 3 uses FlexNet licensing server from Microvision to allow customers to flexibly deploy products and manage their licensing. Instead of product serial numbers, VMware Infrastructure 3 will use activation codes and license files to manage licensing centrally.

FlexNet offers several benefits to VMware Infrastructure 3 customers. FlexNet licensing improves license management significantly: Licensing new hosts, upgrading and reallocating capacity on the fly is much easier. For example, the licensing server automatically decrements available license capacity when customers add new VMware ESX Server hosts to the environment. Furthermore, there is no need to manually re-install license keys on individual hosts during upgrades.

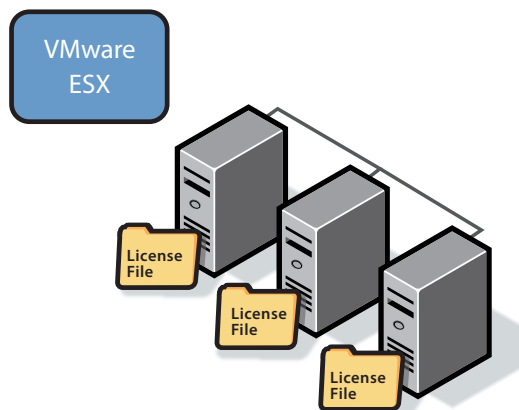
The default configuration for VMware Infrastructure 3 is to install and configure the license server on the same system as VirtualCenter Management Server. The software captures all licenses in a single license file for centralized management. It also tracks and dynamically allocates and re-allocates servers in 1 or 2-processor increments, based on purchased license capacity.

No single point of failure with centralized licensing

Once configured, VMware VirtualCenter and VMware ESX Servers remain fully functional, even if the licensing server is unavailable. This default configuration ensures that ESX Servers running in production environments will continue to run, even when disconnected from the license server.

Decentralized licensing option Although the recommended licensing option is to manage all VMware Infrastructure 3 licenses centrally with the licensing server, customers can also manage them on individual hosts. VMware ESXi licensing is always decentralized, and it uses a serial number instead of FlexNet files. This option requires individual license files for each VMware ESX Server. It is suitable for small environments that do not use VMware VirtualCenter or for customers who prefer a decentralized approach to license management.

Figure 6. Decentralized License Management



For more information on FlexNet licensing, please refer to the VMware Infrastructure 3 Installation Guide.

Summary

VMware Infrastructure 3 pricing, packaging and licensing are designed to simplify how VMware customers buy, deploy and manage VMware products. With VMware Infrastructure 3, several changes provide customers with additional value and flexibility:

- Three new VMware Infrastructure 3 Acceleration Kits offer affordable options for small- and medium-sized businesses to get started with a small virtual infrastructure deployment.
- Current customers will receive all of the new functionality in VMware Infrastructure 3 as part of their active SnS contracts.
- Upgrade paths among VMware Infrastructure 3 editions provide a cost-effective way to upgrade to more advanced functionality.
- Capacity pricing and centralized license management provide customers with more flexibility and simplify how customers purchase and deploy VMware Infrastructure 3.

If you have additional questions regarding VMware Infrastructure 3 pricing, packaging and licensing, please contact VMware sales, partners or authorized resellers.



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